TEACHING PARENTS FUNCTIONAL BEHAVIOUR ASSESSMENT TO IMPLEMENT WITHIN THEIR HOME WITH THEIR CHILDREN

A Thesis submitted

in partial fulfilment of the requirement

for the degree

of

Master of Science in Child and Family Psychology

in the

Department of Health Sciences

by

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University of Canterbury

2016

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ACKNOWLEDGEMENTS

I would like to use this opportunity to give infinite thanks to my supervisors, Dr. Gaye Tyler-Merrick and Mr. Lawrence Walker. Thank you both for your support, encouragement, constructive feedback and influential passion and motivation towards my project. I am beyond grateful to you both for your guidance throughout this thesis. To my primary supervisor Gaye, I have valued your extensive feedback and endless support beyond typical requirements. To my secondary supervisor Lawrence, a huge thank you for your sound technological advice and expert knowledge on vignette creation and video based data collection and analysis.

I am especially grateful to the families that assisted in the creation of my instructional vignettes, photographs for the parent handbook and my advertisements. Thank you for allowing me to create New Zealand specific resources and develop a truly unique parent training programme. In addition, thank you to all the families who participated, without you this study would not have happened. Thank you for your dedication to my programme and for bringing positive attitudes and motivation to every encounter we shared.

To my family and partner Gavin, thank you for your endless support, encouragement and belief in me throughout this journey, I really would not have been able to complete this project without you.

TEACHING PARENTS FUNCTIONAL BEHAVIOUR ASSESSMENT TO IMPLEMENT WITHIN THEIR HOME WITH THEIR CHILDREN

Abstract

Problem behaviour is the most common reason why parents seek assistance of professional mental health services. Children who continue to engage in problem behaviour past typical development trajectories are at greater risk of developing enduring behavioural, social and academic difficulties and can place distress on the entire family system. Functional behaviour assessment (FBA) is a process which provides an explanation why problem behaviour is present and what purpose or function this behaviour serves the child. Thus, information gathered by the FBA processes is used to inform the choice of intervention.

The present study developed and then taught, via two-two hour workshops, a brief parent training programme, the Parent Empowering Programme (PEP) on functional behaviour assessment and positive behaviour support strategies to a group of five participants in a group setting. Three participants then implemented PEP in their home with one of their children during a problematic home routine. The results showed that these parents were able to learn functional behaviour assessment skills and implement a small function-based intervention plan with some success in their own home. Social validity results indicated that the PEP was socially acceptable. Limitations in terms of parent data collection is discussed along with suggestions for future research.

Chapter 1

INTRODUCTION

Development of Problem Behaviour in Children.

The presence of problem behaviour is the most common reason why parents seek the assistance of professional mental health services (Owen, Slep, & Heyman 2012). As children develop, new behaviours both appropriate and undesirable are added to their repertoire. Thus, the expression of challenging and problem behaviours such as tantrums, verbal or physical aggression and noncompliance are common and expected during the path of child development (Johnston & Katz, 1973; Fox, Dunlap & Cushing, 2002; Reid & Patterson, 1989). A child's behaviour becomes problematic and beyond the scope of regular development when these behaviours have the potential to cause harm to self or others, interference to learning and maladaptive interactions with the environment and society processes (Smith & Matson, 2010).

There are a number of factors which contribute to a child's behaviour development such as their developmental stage, the presence of risk factors and parental and peer influence. Each of these three factors are addressed below.

Developmental Stage. Problem behaviour in young children is often related to different stages of psychological, emotional and social development (Paptherodorou, 2005). In early stages of childhood is it developmentally appropriate for children to engage in problem or challenging behaviour as they learn about their world and its limits (Fettig & Ostrosky, 2011). In regard to psychological and emotional development, young children often express problem behaviour as a result of immature self-regulatory systems (Breitenstein, Hill & Gross, 2009). Alternatively, premature social development can be determinant of problem behaviour development due to social acceptability misconceptions such as misunderstanding

of social norms and rules (Breitenstein et al., 2009). When problem behaviour is associated to a developmental stage, it is presumed that children will typically grow out of the behaviour as they learn new prosocial behaviours (Breitenstein et al., 2009). However, some children will show persistent behaviour problems and will continue to engage in them to get their needs met (Fettig & Ostrosky, 2011). It is when children have learned this maladaptive way of meeting their needs that further assistance and intervention is suggested (Fettig & Ostrosky, 2011). In addition, when a child's behaviour has an adverse effect on themselves or others learning and well-being, intervention action is advised (Papatheodorou, 2005).

Risk Factors. There are a variety of risk factors that can influence and shape a child's behaviour developmental trajectory. According to Deater–Deckard, Dodge, Bates and Petit (1998) there are four divisions of risk factors in the development of child behaviour problems. First, there are child based risk factors such as, genetic inheritance, goodness of fit to the family and parental environment and child temperament. Second, there are sociocultural risk factors such as, familial socioeconomic status, cultural or racial minority, social isolation and political affiliations. Third, there are parental and familial based risk factors such as, parenting perspectives and practices, presence of parental stress, single parent status and presence of parental psychopathology. Fourth, there are psychosocial risk factors such as, peer relationships and interaction and peer rejections which all show that children can be vulnerable to a number of risk factors. Risk factors can influence child behaviour development through a dynamic relationship. Breitenstein et al. (2009) suggests that there is a transactional model between the different risk factors and child behaviour. Risk factors do not work in isolation, they are an interplay between child, family and societal factors. The more risk factors influencing the child, the greater the cumulative risk of the child developing persistent behavioural problems beyond typical development (Deater–Deckard et al., 1998).

Therefore, it is essential that potential risk factors are considered when identifying problem behaviour in children.

Parental Influence. There is strong evidence to suggest that parents have an influential role in the development and maintenance of their child's problem behaviour (Bolton et al., 2003). Furthermore, not only is parental role influential but the effect of parents in the development and maintenance of problematic child behaviour is unique because of the high frequency of interaction with their child compared to anyone else (Matson, Mahan & LoVullo, 2009; Serketich & Dumas, 1996). Parental influence on child problem behavioural development can occur through high levels of punishment, attention inconsistency in response to problem behaviour, clarity or ambiguity in instructions and requests, and frequency of managing their child's behaviour through coercion (Serketich & Dumas, 1996). Problem behaviour is learned and sustained through inappropriate positive and negative reinforcement exchanges between the child and their parent(s) (Serketich & Dumas, 1996). Patterson, DeBaryshe and Ramsey (1989) describes the coercion trap as the exchanges between parent and child which escalate due to inappropriate reinforcement. For example, a parent asks a child to stop behaving in such a way and the child responds with problem behaviour, the parent then escalates their behaviour and the child matches this with an intensified version of the problem behaviour. Eventually either the child or parent gives in and the pair learns that this behaviour exchange is what is required for the child (or parent) to win, thus this behaviour pattern is repeated again. This coercive parenting trap is a common feature in parents who struggle with managing problem behaviour (Patterson et al., 1989; Reid & Patterson, 1989).

When parents use inappropriate behaviour management strategies a problem behaviour development trajectory develops as a consequence (Johnson & Katz, 1973). Johnson and Katz (1973) suggest that parent use of inappropriate management practices tends

to arise due to minimal knowledge of how to effectively address their child's behaviour. It is important to note, from an advantageous perspective, there is evidence which suggests that when parent behaviour changes then child behaviour will consequently change (Anthony et al., 2005). To illustrate this view, Anthony et al. (2005) looked at whether parental stress and parent behaviour influenced the child's behaviour and social competence at preschool. This research showed that when parent behaviour was rated as 'high stress' the child's behaviour consequently mimicked this through inappropriate social interactions and problem behaviours. Alternatively, when parents engaged in 'low stress' behaviours, their child's behaviour at preschool adapted accordingly. The results of this study are in alignment with other research projects with similar aims (Baker et al., 2003; Tomanik, Harris & Hawkins, 2004).

Māori Models of Health

New Zealand is a bicultural nation with approximately 74 % of the population of European Pākehā descent and 15% from Māori descent (Statistics New Zealand, 2013). Māori as the second major ethnic group in New Zealand and are negatively over-represented in a number of socio-economic and health statistics thus requiring more services than European *Pakeha* citizens (Little, Akin-Little, & Johansen, 2013). As a consequence, the New Zealand government has recognised the need for a culturally responsive initiative which meets the needs of Māori. In response to this call the Health Practitioners Competence Assurance Act (2003) (HPCAA) was created. This legislative framework requires health professionals to be culturally competent in their area of practice (HPCAA 2003). This initiative has been guided by the Māori models of health and wellbeing: *Te Whare Tapa Wh*ā, *Meihana* and the Māori model of mental wellness *Te Ao Tūtahi*. These frameworks incorporate the values of Māori culture and are able to be implemented across health services

thus, ensuring the delivery of care and intervention consistent with Māori beliefs (Rochford & Signal, 2009).

A distinctive component of the Māori health models is the importance of *whānau. Whānau* translates to family but the Māori refer to *whānau* as any support person/s of the person of concern and their family. The inclusion of *family/whānau* in assessment and intervention practice is often missed in the medical model (Pitama et al., 2007). Māori recognise that *whānau*/family support is crucial to a person's health and wellbeing and *whānau* support is unique because of their insight into a person's behaviours and their influence on a person's development (Pitama et al., 2014). The inclusion of family/*whānau* is valued within New Zealand's culture thus is an essential component in the design and delivery of any behavioural intervention or assessment programme in New Zealand for children.

When working within a New Zealand setting it is essential that researchers and practitioners acknowledge the cultural needs of clients and the means of doing this can be through knowledge of the following Māori models of health, Te Whare Tapa Whā, Meihana and Te Ao Tūtahi.

Te Whare Tapa Whā. The *Te Whare Tapa Whā* model of health was developed to illustrate the holistic approach of Māori health by Mason Durie in 1982 (Rochford, 2004). The models refers to the four dimensions of health*: taha hinengaro* (mental health), *taha whanau* (family/societal health), *taha tinana* (physical health), and *taha wairua* (spiritual health). The model refers to these components as the four walls of a house or *wharenui.* The reference to being foundations of the *wharenui* illustrates the interwoven dimensions of health and how together they support the full structure (Rochford, 2004). Moreover, this symbol represents that all walls are required to be strong for the *wharenui* to stand strong and

should one of these foundations falter the *whare* would be compromised in other words, the person would become unbalanced and therefore unwell (Pitama et al., 2007). Thus, the *Te Whare Tapa Whā* model is a multidimensional model of health.

Meihana. Meihana is a clinical assessment model that was developed from the *Te Whare Tapa Whā* model (Pitama, Roberston, Cram, Gillies, Huria & Dallas-Katoa, 2007). The *Meihana* model built on the *Te Whare Tapa Whā* model by adding two more dimensions, that of, *taiao* (physical environment of the person/whanau) and *iwi katoa* (support services for the person/whanau) (Pitama et al., 2007). Rather than describing the dimensions of health as walls of a house, the *Meihana* model views health as a double hulled canoe/*waka.* The six dimensions of health lay across the two hulls with the two hulls symbolising the person and family/*whānau*. In addition, the model includes the four winds, ocean currents and navigation as barriers that may push or influence the *waka* off course or, into imbalance and ill health (Pitama, Huria & Lacey, 2014). The *Meihana* model was developed in order to provide a comprehensive assessment and intervention action for the person/*whānau* seeking services (Pitama et al., 2014). The development of the *Meihana* model has allowed for more appropriate interventions to be created that are in alignment with Maori values and traditions (Pitama et al., 2007; Pitama et al., 2014).

Te Ao Tūtahi. *Te Ao Tūtahi* is a model of mental wellness which incorporates the influence and contributions of different 'worlds' acknowledged in Maori culture: *Te Ao Whakanekeneke* (Global world) *Te Ao Pākehā* (European world), *Te Ao Hou* (Contemporary Maori world) and *Te Ao Tawhito* (Ancient Maori World and Origins) on a person's mental wellbeing (McNeill, 2009). The name *Te Ao Tūtahi* translates to *worlds standing side by side* and the reciprocal interactions between these worlds both positive and negative are the central aspect of this model (McNeill, 2009). *Te Ao Tūtahi* is a relatively new model which takes into consideration that mental illness and wellness is a product of the interactions

between these worlds, particularly in Maori. This model was created in an attempt to address limitations of the previous mentioned *Te Whare Tapa Whā and Meihana* frameworks. *Te Ao Tūtahi* was not developed to replace these models but instead be used as an additional assessment and analytic tool that extends on mental health and illness. Its original development was intended for Maori mental wellness but has been applied in a variety of contexts and settings to identify the origin of behaviours and design intervention processes (McNeill, 2009).

Impact of Persistent Problem Behaviour on Child and Family Functioning

When problem behaviour is not addressed there can be adverse outcomes on the child, the family system and the child's relationship with others. Most problem behaviours disappear as children mature and develop new prosocial skills. However, some children continue to engage in problem behaviour and learn to engage in behaviour which in turn promotes long term problematic development trajectories (Powell, Dunlap & Fox, 2006). As a result, growth and maintenance of problem behaviour occur and typical child development can be impeded. Furthermore, the family can also become at-risk of long term dysfunction. In addition to child development and family system dysfunction, parent-child relationships and interactions can also be strained when child problem behaviours persist (Bolton et al., 2003).

Impact on Child Development. Persistent problem behaviours can negative impact on child development. This can include a greater risk of social and academic difficulties through to adolescence (Fox et al., 2002; Powell et al., 2006), psychopathology and mental health concerns (Morrison, Macdonald & LeBlanc, 2000) and delinquency and criminal pathways (Webster-Stratton & Hammond, 1997). With regard to social and academic functioning, Powell et al. (2006) suggest that children whose problem behaviour is sustained or escalates past typical developmental expectations are at risk of academic failure and social

incompetency which can persist through to adolescent years. With regard to psychopathology development, longitudinal studies have indicated that when problem behaviour is not addressed and progresses beyond developmental norms, there is a reliable pattern of developmental consequences and experiences which lead to oppositional/defiant and conduct disorders (Morrison et al., 2000). Furthermore, in more extreme cases, pervasive problem behaviour can be influential on the child's psychological health with regards to a higher risk of suffering depression, anxiety and suicidal ideation (Morrison et al., 2000).

Impact on Family System. Children who consistently engage in problem behaviours have the potential to interfere with daily family functioning (Lucyshyn et al., 2004) and to place significant disruption and stress on the family system (Fettig, Schultz & Sreckovic, 2015; Fox et al., 2002). This in turn causes disruption of family interactions, lifestyle and daily tasks (Harrower, Fox, Dunlap, & Kincaid, 2000). This disruption can have a compounding effect as it can place the family at risk of social isolation because of avoidance of community events or locations where the child's problem behaviour may occur (Fox et al., 2002). In addition, parents of children with problem behaviour often find their self-belief in their parenting abilities decrease and parental stress increases (Donenberg & Baker, 1993). Donenberg and Baker (1993) showed that when parents of children with problem behaviour were compared to parents without these issues there were significant negative outcomes to their family social life, parenting perspectives and child-related stress.

Impact on Relationships. Parent-child relations and sibling relations can be affected by a child's problem behaviour (Fettig & Ostrosky, 2011). Parents with children with behaviour problems are more likely to attribute misbehaviour to internal characteristics and motives of the child, rather than environmental causes. This attribution can result in inappropriate behaviour management (Bolton et al., 2003; Slep & O'Leary, 1998; Smith & O'Leary, 1995).

Intervention

Children who engage in persistent problem behaviour are not destined for one course of development as development trajectories are not rigid. Thus, with early intervention or prevention strategies, behaviour can be reshaped and replaced with appropriate behaviour (Webster-Stratton & Taylor, 2001). There is evidence to suggest that intervention and prevention action based on the function of problem behaviour is the most effective for prompt and enduring behaviour change (Fettig & Barton, 2014). Furthermore, because children live within a dynamic family system, their family system needs to also adapt in order to create an environment which promotes and support prosocial or appropriate alternatives to the problem behaviour (Dunst, Trivette & Hamby, 2007). Therefore, it is important that interventions are specific to both the child and the family's needs. In light of this, interventions which are family-centred have been showed to improve quality of life for all members of the family who are affected by a child's problem behaviour (Dunst et al., 2007). Thus, the most effective intervention practices for long term behaviour change are those which are implemented early, are designed to fit the function of the identified problem behaviour and, aim to support both the child and family (Dunst et al., 2007).

Early Intervention and Prevention. When intervention or prevention actions are taken early there is greater probability for long term behaviour change. Webster-Stratton and Taylor (2001), define suggest that intervention is a type of action that can change the course of behaviour development. Alternatively they suggest that prevention is when actions are put in place before problem behaviour develops which occurs on the basis of presence of risk factors. For example, when professionals identify potential risk factors and cumulative risk before or at the start of problem behaviour development, a prevention strategy such as family monitoring could be put in place before the problem behaviour develops within the child's repertoire.

Research supports early identification and implementation as two essential factors which increase the likelihood of children progressing on a positive behaviour trajectory (Breitenstein et al., 2009; Webster-Stratton & Taylor, 2001). That is, children with problem behaviour are more likely to be responsive to intervention strategies at an early age when behaviour patterns are still malleable, rather than later when behaviour is established in their repertoire. That is, children are more likely to maintain and exercise prosocial replacement behaviours when intervention is implemented early (Fettig & Ostrosky, 2011; Morrison et al., 2000; Reid & Patterson, 1989; Webster-Stratton & Taylor, 2001).

Interventions and the Function of Behaviour. It has been found that when behaviour interventions are designed from behaviour function they have a greater probability of producing behaviour change and maintaining the replacement behaviours (Marcus, Swanson & Vollmer, 2001). The title of function-based intervention refers to interventions that recognise behaviours that are supported by negative and/or positive reinforcement which meet the function or purpose of the problem behaviour (Ingram, Lewis-Palmer & Sugai, 2005). Function-based interventions are designed to create socially important behaviour change through a person-centred approach which is individual and achieves significant outcomes (Ingram et al., 2005). When comparing function-based and non-function-based interventions there are distinctive benefits associated to function-based interventions which are absent in non-function intervention (Ingram et al., 2005). For example, function-based interventions are associated with a greater reduction in problem behaviour (Sugai, Lewis-Palmer, & Hagan-Burke, 2000). Moreover, function-based interventions have been shown to be effective across different populations such as children with attention deficit hyperactivity disorder, emotional disorders such as anxiety and depression as well as for children without formal diagnosis or specified disabilities (Sugai et al., 2000).

Family- and Person-Centred Intervention. For intervention strategies to be effective they must be designed and delivered with acknowledgement to the individual needs of the child and their family. Children operate within a family system thus their behaviour both prosocial and problematic interacts and effects other members within the family. Therefore, the most effective intervention plans are those which consider a family's unique needs and strengths (Fox et al., 2002). Fox et al. (2002) further suggests that it is important for families to be included in the development of the intervention plans so they can learn how to create environments in which prosocial behaviours can be taught. Family-centred services have been shown to reduce a child's problem behaviour whilst simultaneously increasing family behaviour management, communication and problem solving skills. This is because family participation in interventions helps develop family competence in supporting the child with problem behaviour. Fox et al. (2002) also suggest that by taking note of the family system rather than just focusing on the child, family based interventions help support families to be independent so that they have the skills to solve and respond appropriately to future behavioural issues.

Functional Behaviour Assessment.

Functional behaviour assessment (FBA) is a systematic process which enables information to be gathered regarding why the behaviour is present and what purpose it serves the child (Fettig & Barton, 2014; Sugai et al., 2000). FBA has developed from Skinner's operant conditioning theory which states that behaviour which is reinforced will continue and behaviour that is punished will cease as a result of the learned association between the behaviour and the consequence (reinforcement or punishment) (Skinner, 1963). Function-based interventions use FBA to identify behaviour and the environmental factors which support the maintenance of the problem behaviour (Powell et al., 2006). From the FBA process, the function of the child's behaviour is determined and this information is then used

to inform the choice of the most effective intervention strategy to use. As research has progressed, it has become apparent that interventions that include an FBA component are effective and create sustainable change (Fettig & Barton, 2014).

The Process of Functional Behaviour Assessment. The information gathered from FBA is objective and follows a standard behaviour pattern. FBA uses direct observations to identify the function of behaviour rather than self-reports (Ferro & Liaupsin, 2007). The standard behaviour observation used in an FBA is known as an ABC observation where A stands for antecedents which are the events that precede and trigger behaviours, B stands for behaviour which is the observable behavioural action and, C stands for the consequences which are the events or factors which occur after the behaviour which serve as reinforcement or punishment to the behaviour (Fettig & Barton, 2014; Sugai et al., 2000). FBA enables the relationships between physiological and individual factors, environment and behaviour to be identified. Physiological or individual factors and relationships can be difficult to identify as these can be temporary and unseen, for example, ill health, tiredness or hunger. However, environmental factors are essential to be identified as they can temporarily change the extent of effect of an antecedent or consequence (Sugai et al., 2000). When these components are identified, a summary statement can be created as to what the function and purpose of the behaviour is and what is influencing or maintaining behaviour (Ferro & Liaupsin, 2007).

Function of Behaviour. There are three main functions of child problem behaviour: avoidance or escape, attention and seeking tangibles (Ferro & Liaupsin, 2007). Within these three categories are further sub-categories. For example, avoidance or escape from social interaction or avoidance or escape from activities or demands. By using an FBA the function and the sub-category of the function can be determined which can direct intervention planning and application (Hagopian, Wilson, & Wilder 2001). Therefore, information from an FBA can facilitate creating and applying an intervention which teaches appropriate

replacement behaviour whilst meeting the function of the problem behaviour (Kern, Gallagher, Starosta, Hickman & George, 2006; McNeill, Watson, Henington & Meeks, 2002).

Research Evidence. The inclusion of FBA processes has been identified in research as a critical factor for effective and sustainable behaviour interventions (Kern et al., 2006; Newcomer & Lewis, 2004). Literature supporting FBA protocols initially emerged from Iwata, Dorsey, Slifer, Baumana and Richman (1982) in clinical settings where a researcher completed an FBA with nine children aged between 4 and 17 years old with developmental delays who displayed self-injurious behaviour. The results of this study suggested that children behaved differently depending on the environmental situation. Furthermore, the findings suggest that children's behaviour was a function of what they wanted in each distinct condition that is, attention, escape/avoidance or a sensory-based motivation. Since this study, the FBA literature has grown with more recent findings suggesting that FBA based interventions significantly reduce problem behaviour and increase appropriate desirable behaviour in children (Fettig & Ostrosky, 2011; Fettig et al., 2015; Marcus et al., 2001; McNeill et al., 2002; Shayne & Miltenberger, 2013; Vaughn, Clarke & Dunlap, 1997). More recently, the research in this field is now shifting to investigating whether FBA procedures can be taught to parents (Fettig et al., 2015; Marcus et al., 2001; McNeill et al., 2002; Shayne & Miltenberger, 2013).

Summary

To summarise, the development and engagement in some problem behaviour is expected as children grow and progress through the different stages of development. However, some children's problem behaviour exceeds typical expectations and can progress to developing on an antisocial developmental trajectory. However some children are vulnerable to a number of potential risk factors such as genetic inheritance, parental drug and

alcohol use, parental depression, poverty and goodness-of-fit within a family. Children with persistent problem behaviour are at-risk of additional complications such as academic, social and psychological difficulties which can extend past childhood into adolescence and beyond. Furthermore, entire family/*whānau* lifestyles can be disrupted and compromise family functioning. For example family avoidance of community and social events as a result of parental apprehension. Additionally, parent and child relationships and interactions can be strained when problem behaviour is consistent or continues to escalate.

Parents are influential to their child's behavioural development as when parents use ineffective and inappropriate parenting techniques problem behaviour can be maintained and escalate further. The maintenance and escalation of problem behaviour is of concern due to the consequential effect these behaviours have on the child and their family/*whānau*. Parents can attribute the child's behaviour to internal characteristics but this can result in inappropriate and inconsistent parenting practices. The use of inappropriate and inconsistent parenting practices only escalates the problem behaviour further and consequently continues to place strain on the child-parent-family relationship.

In response to the prevalence and maintenance of problem behaviour in children, researchers have been dedicated to investigating whether intervention and prevention strategies are effective and if so, what components are necessary for an effective intervention. In the New Zealand setting there are cultural diversities that need to be considered when developing and/or implementing assessment, analyses and intervention practices. The key perspective that is present in all Māori models of health and wellbeing is the holistic approach, which recognises that many aspects of a person's life are interlinked and have bidirectional influences which can create imbalance (illness) or balance (wellness). Additionally, interventions which are implemented early in a child's life have been shown to have the greatest probability of long term behaviour change. Furthermore, interventions

based on the function of the problem behaviour appear to be the most effective. Consideration of the child and family and their environment is important as families/*whānau* need to be able to create an environment which fosters appropriate behaviour development whilst decreasing problem behaviour.

Thus in conclusion, interventions which are designed to include and focus on the family/*whānau* system rather than just the child alone, the function of behaviour and those interventions which are culturally responsive have been shown to be more successful in decreasing problem behaviour and increasing positive family/*whānau* interactions which can be sustained over time.

Chapter Two

LITERATURE REVIEW

This chapter is divided into three reviews: the first review presents the evidence-based literature on parent implementation of interventions, the second review presents the literature on parent training and implementation of functional behaviour assessment and the third section present literature on developing and delivering parent-training for parent implemented interventions.

Part I

PARENT BASED INTERVENTION IMPLEMENTATION

The studies included in this section were filtered through the following criteria: focus on child problem behaviour, parents were the 'intervention implementers' of behavioural procedures, children under 12 years of age and all studies adhered to experimental design. The literature search for peer reviewed articles was undertaken on PSYCINFO and Google.scholar databases. The following descriptors were searched; parent intervention, parent based intervention, parent therapist, parent outcomes in behaviour intervention, family outcomes in behaviour intervention, functional behaviour assessment for parents, child difficult behaviour, child problem behaviour, parent training, function intervention and functional parent intervention.

Parents as Therapists for their Child.

Currently, there are a disproportionate of number of children and families needing professional mental health services and readily available professional resources (Aupont et al., 2013; Milne, 2015). Global trends show that intervention and treatment services for children with psychological and behavioural problems are inadequate or inaccessible due to a shortage of professionals working in the field (Kim, 2003). Children with severe difficulties

are prioritised, thus many families whom require professional assistance for mild or moderate concerns, are either seen much later which gives the issue time to develop further or, are not seen at all (Aupont et al., 2013). In response to this demand, contemporary research has shifted focus from clinician delivered interventions to paraprofessional intervention delivery by teachers and more recently parents. To date, research has shown that when parents are trained as paraprofessionals in intervention delivery they can have unique advantages for their child as a therapist that typical professionals do not, are often able to gain additional therapeutic benefits for themselves and the entire family and, can be successful in implementing behaviour change interventions and maintaining behaviour change (Fettig & Barton, 2014; Fettig et al., 2015; Marcus et al., 2001; McNeill et al., 2002; Milne, 2015; Shayne & Miltenberger, 2013).

There is evidence to support, that parents can be trained to be their child's therapist and effectively implement interventions with lasting results (Fettig & Barton, 2014; Williams, 1959). The first research dates back to the late 1950's and has continued to evolve until the present time. The first notable research of this kind was the experiment conducted by Williams (1959). Williams showed in a case study that it was possible to extinguish a 21 month old child's temper tantrums at bedtime by teaching the parent operant extinction principles. A second historical project which built on this original study and consequently promoted interest in this area of research was by Hawkins, Peterson, Schweid and Bijou (1966). Hawkins et al. (1966) added positive and negative reinforcement behavioural principles to operant extinction principles when working with a four-year-old boy and his mother. The boy was described as having severe problem behaviours to manage. As the mother was taught to implement the behaviour principles the child's frequency and intensity of challenging behaviour decreased rapidly. Unlike the clinical setting of the Williams' experiment this study was conducted in the home setting and suggested that a parent could

successfully act as a therapist. In addition, Hawkins et al. (1966) included a maintenance probe with the follow up measures showing that the mother was able to continue to implement the intervention and maintain the behaviour change one month later.

Since these two early studies the research in this field has grown. There appears to be a collective consensus that parents can be successful in implementing behaviour interventions when trained to be their child's behavioural therapist (Fettig & Barton, 2014). Researchers have developed what was found and tried in the initial studies and now present evidence that parents can successfully deliver behaviour interventions across different demographics and family characteristics (Fettig & Barton, 2014; Fettig et al., 2015; Marcus et al., 2001; McNeill et al., 2002; Shayne & Miltenberger, 2013). Interestingly, in the literature search there was only one article found which suggested that parents were not effective in decreasing problem behaviour in their child (White, Taylor & Moss, 1992). The comprehensive meta-analysis of White et al. (1992) examined whether intervention programmes that involve parents are more effective than interventions that did not involve parents. The analysis looked at the reported associated benefits of parent involvement in intervention implementation and it was noted there was insufficient evidence to suggest that when parents are the intervention implementer the behavioural outcomes for the child are better than if a clinician delivers the intervention. However, White et al. (1992) later conceded that poor methodology may have been the reason for these overall findings.

Parent-Therapists Advantages.

Parents have been identified as ideal agents for delivering interventions aimed at behaviour change because of their unique relationship and interactions with their child compared to any professional (Milne, 2015). Research suggests there are three distinctive parent based benefits which contribute the parents' 'ideal therapist' status. These include consistent presence (Stokes & Luiselli, 2008), interaction across a range of contexts (Baker,

Landen, & Kashima, 1991; Johnson & Katz, 1973; Marcus et al., 2001;Matson et al., 2009) and ability to control and manipulate a child's environment (Milne, 2015).

First, parents are able to accurately record their child's behaviour which is valuable for the development of interventions (Stokes & Luiselli, 2008). Parents are most often in their child's natural environment which may make them the most accurate therapist at documenting their children's behaviour and function (Stokes & Luiselli, 2008). The unique interactions shared between child and parent may allow a parent to observe patterns of behaviour that may not be expressed in clinical setting. This allows for more effective intervention plans to be developed which in turn increases the probability that behaviour change will be maintained (Stokes & Luiselli, 2008).

Secondly, parents typically share more interactions across a diverse set of contexts with their child than anyone else. Thus, they are aware of various factors which may encourage or influence their child to continue their problem behaviours (Milne, 2015). This is advantageous as this observation is something that parents have unique access to which a professional does not. In addition, this means that parents are able to provide continuous intervention across a variety of contexts for their child (Johnson & Katz, 1973; Matson et al., 2009). That is, parents have more opportunities to practice and execute behaviour management intervention strategies compared to any professional intervention implementer (Baker et al., 1991; Marcus et al., 2001). These repeated opportunities also encourage generalisation and maintenance of new prosocial behaviour and also demonstrates there is no better suited intervention implementer than a child's own parent (Baker et al., 1991). In support, research dating back to the 1970's also supports that generalisation, maintenance and treatment effects are more likely to occur when parents are trained to deliver interventions (Lovaas, Koegel, Simmons & Long, 1973; Wahler, 1969).

Thirdly, parents have unique control of their child's environment, whether it is small cues or obvious contexts, parents can control the manipulation of environments which can predict and prevent certain behaviour patterns (Milne, 2015). For example, parents have the ability to directly and repeatedly influence environments which will accommodate intervention ideals of prosocial behaviour development and problem behaviour discouragement (Milne, 2015).

In light of these three aforementioned parent-therapist exclusive advantages, it is clear that between the child-parent dyad there is a unique bond which enables parents to have influence over the expression and development of their child's behaviour (Bolton et al., 2003; Fettig et al., 2015). Therefore, the evidence suggests that parent-therapists can be valuable paraprofessionals and further investigation into this area is warranted.

Parent and Family Benefits.

Training parent as therapists promotes additional therapeutic benefits for the parents in terms of increased self-confidence and positive family relations that do not occur when a professional delivers the behaviour intervention. For example, there is evidence to suggest that parent therapist training encourages skill development and confidence in parents and this can result in reduced stress for both the parent and child (Baker et al., 1991; McConachie & Diggle, 2007). When parents feel efficacious about the way they interact with their child, they are more likely to provide more positive attention to the child which in turn, reduces the risk that children will develop more severe behaviour patterns (Sanders, Turner & Markie-Dadds, 2002). Baker et al. (1991) investigated whether parents were burdened or relieved when they were in the position as intervention implementer for their child. Investigations showed that there were significant decreases between pre- and post-training measures of symptoms of depression in parents, parent/family problems, and overall family stress. In addition, after parents were trained to deliver their child's intervention they report greater life

satisfaction (Baker et al., 1991). In support of this finding, more recently the research of Minjarez, Mercier, Williams, and Hardan (2012) focused on the stress and empowerment levels of participants partaking in a 10-week group parent-therapist programme for pivotal response training. When comparing baseline and post-participation parental ratings of the *Parenting Stress Index/Short Form* and the *Family Empowerment Scale* results showed that on completion of the parent training, parents reported higher levels of empowerment and less stress. Parental empowerment was measured across family life, ability to seek service and the ability to manipulate community and environmental factors in relation to their child's needs. The results indicate that parents reported less stress regarding interactions with their child which was associated with improved communication between the parent and child.

Parent Based Intervention Implementation Literature Review Summary.

To summarise, findings of the studies reviewed showed that parents can successfully act of as their child's behaviour therapist. Additionally, when parents are trained to be their child's therapist there are benefits for the parent, child and family which are not present when interventions are delivered by other professionals. It appears that training parents as therapist has benefits that extend much further than just the child the intervention is focused on. These findings are important especially when there appears to be a lack of professional resources for families with children experiencing behavioural problems. In light of this it would seem that investigating parent training to deliver interventions is a worthy research topic.

Part II

PARENT TRAINING AND IMPLEMENTATION OF FUNCTIONAL BEHAVIOUR ASSESSMENT AND INTERVENTION

A literature search was undertaken on PSYCINFO and Google.scholar for peer reviewed research between the years 1996-2016 under the following descriptors; parent intervention, parent based intervention, functional behaviour assessment for parents, child difficult behaviour, child problem behaviour, parent training, function intervention and function parent intervention. After searching comprehensively, 14 studies over the last 20 years were sourced which involved training parents to perform and/or utilise FBA procedures to reduce problem behaviour in children. These studies were deemed significant as they; were less than twenty years old, included a functional assessment, focused on parent training for implementation of FBA procedures, used and recorded direct observation measures, had parents as primary intervention agents and children as the secondary participants, and followed experimental design and rigour. The participant and programme characteristics as well as measures and results of these studies have been summarised in Tables 1 and 2. Table 1 describes the characteristics of the parents (and their children) who participated in functional behaviour assessment and intervention training research in the last 20 years. Table 2 describes research studies programme characteristics and results over in the last 20 years on training parents in functional behaviour assessment and the resulting function-based interventions.

Table 1

Characteristics of Parents (and their children) who have participated in Functional Behaviour Assessment and Intervention Training Research in the last 20 years.

		Child Participants			Parent Participants	
Authors	*N*	Age (yrs)	No. & Gender	Diagnosis	Relationship	No. & Gender
Duda, Clarke, Fox & Dunlap (2008)	3	2-5	1 female 2 males	N/A	Parent of multiple children(3)	1 Mother
Dunlap Ester, Langhans & Fox (2006)	2	2-3	2 females	Expressive Language Delay	Mothers	2 Mothers
Fettig and Ostrosky (2011)	2	3-4	1 female 1 male	N/A	Parents	1 Mother, 1 Father
Fettig, Schultz & Sreckovic (2015)	3	2-5	1 female 2 males	ASD, sensory integration disorder	Parents	2 Mothers, 1 Father
Frea &Hepburn (1999)	2	4	2 males	ASD	Parents	2 Mothers
Galensky, Miltenberger, Stricker & Garlinghouse (2001)	3	2-7	2 females 1 male	N/A	Caregiver	NR
Harding, Wacker, Berg, Lee & Dolezal (2009)	1	2.5	1 male	Developmental Delay & Peter's Anomaly	Parent	1 Mother
Koegel, Stiebel & Koegel (1998)	3	4-6	1 female 2 males	ASD & Developmental Delay	Parent	NR
Lucyshyn, Albin, Horner, Mann, Mann & Wadsworth (2007)	1	5	1 female	ASD & Moderate to Severe ID	Parents	NR
Marcus, Swanson & Vollmer (2001)	4	2-5	1 female 3 males	Developmental & Speech Delays	Mothers	4 Mothers
Moes and Frea (2002)	3	3	1 female 2 males	ASD	All Family Members	1 Mother, 1 Father
Shayne & Miltenberger (2013)	NR	NR	NR	NR	Foster or Adoptive Parents	6 Mothers, 2 Fathers
Vaughn, Clarke & Dunlap (1997)	1	8	1 male	Agenesis of Corpus Callosum	Parent	1 Mother
Vaugh, Wilson & Dunlap (2002)	1	7	1male	ASD, Severe ID	Parent	1 Mother, 1 Father

Note: ASD = Autistic Spectrum Disorder, ID = Intellectual Disability, N/A = not applicable, NR = not recorded.

Commonalities in the Sourced Studies.

There are a number of similarities between parent training, training settings, research design, research measures, use of additional support for parents after training, and overall findings in the parent based FBA literature.

Similarities were noted across the type of behaviour that was focused on during parent training. All of the 14 studies reviewed included the teaching of FBA and/or function based strategies to create function-based positive behaviour support plans for problem behaviour around daily routines. Given the importance of routines in child development it is not unusual that this was the focus of all researchers. However, ten of the 14 studies only included two components of FBA (Dunlap, Ester, Langhans & Fox, 2006; Galensky, Miltenberger, Stricker & Garlinghouse, 2001;Koegel, Stiebal & Koegal, 1998; Lucyshyn et al., 2007; Marcus et al., 2001) and only four studies included the three components of prevention strategies, replacement behaviour and functional consequences (Duda, Clarke, Fox & Dunlap, 2008; Fettig & Ostrosky, 2011; Fettig et al., 2015; Frea & Hepburn, 1999).

There were also similarities noted across settings. The majority of the parent training took place in the home of the participants. However, there were two studies which taught parents in a classroom setting but still maintained a focus on implementation in the home setting (Marcus et al., 2001; Shayne & Miltenberger, 2013).

Thirteen of the 14 studies trained parents one-on-one in order to deliver the most accurate and appropriate training to the participant. These 13 studies all used single case multiple baseline design. The 13 studies showed variation regarding how many multiple baselines were used as well as varying length in baseline periods. Single case design allows identification of treatment effect and true behavioural phenomena rather than a statistical trend that potentially does not represent a real behaviour (Baumeister et al., 2007). Only one

study by Shayne and Miltenberger (2013) taught parents in a group setting and alternatively followed a within group design.

There was consensus of one common dependant variable across all 14 studies which was the frequency of child problem behaviour. This is to be expected given the practicality of measuring child behaviour and the clear relationship between parent behaviour and child behaviour (Anthony et al., 2005). All studies took their measures directly after training through direct observations which can be seen as both a beneficial and problematic. From one perspective, direct observation is a very useful data collection tool to ensure that accurate behavioural data is recorded compared to retrospective self-/or peer-reports (Baumeister, Vohs & Funder, 2007). Alternatively, this can be seen as a hindrance as researcher presence can bias behaviour and effect social desirability. Thus, results may potentially represent inaccurate conclusions (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). There was a variety of other dependent variables measured across the studies such as parent appropriate responses and implementation of functional strategies. However, these were not consistent across all studies.

Across the studies reviewed, a majority of the studies reported additional support given to parents after their initial training. Twelve of the 14 studies recorded researcher assistance in implementing the functional interventions and strategies after training. Support was given to parents through a combination of performance feedback, constructive criticism, coaching, modelling, additional practice opportunities, or booster learning sessions. Thus, the amount and the type of feedback varied across the studies.

The final commonality across the 14 studies was that the findings of the studies concluded that parents can successfully learn how to use and apply FBA procedures and learn positive behaviour strategies to reduce problem behaviour during dysfunctional daily

routines. To be precise, 13 out of the 14 study's findings suggest that when professionals or trainers either train in the home or, have follow up measures within the home setting, parental intervention fidelity can consistently reach 100%. The results of these 14 studies are promising and give a foundational framework for future researchers to build on.

Discrepancies and Inconsistencies across the Sourced Studies.

Across the 14 studies reviewed there were some key incongruencies with regard to inclusion of additional measures of contextual fit, social validity measures, intervention phase duration and the amount of supplementary support during parent training.

Only three studies reviewed reported measures of intervention contextual fit. That is, the measure of how intervention training fits with the values, skills, personal and familial resources and personality of the participant and their child (Benazzi, Horner & Good, 2006). This is of concern, as there is compiling evidence which elucidates the influence of contextual fit on positive outcomes of interventions (Benazzi et al., 2006). Thus, the frequent exclusion of this measure questions whether training programmes with less significant results are due to lack of contextual fit rather than training programme deficiencies. Alongside this question is the alternative perspective that successful results were largely a product of the contextual fit with the given sample of participants, rather than training programme efficiencies.

Only seven of the studies reviewed undertook social validity measures. It is interesting that this measure does not appear in the majority of research because social validity and satisfaction measures provide an indicator of how much effort and value participants place on their training and intervention procedures (Foster & Mash, 1999). When social validity data was collected it was across a variety of methods using questionnaires, group discussions, rating scales and interviews. The inconsistency of collecting social

validity data is a limitation as parents are more likely to show treatment gains if they approve and align their values with the intervention programme (Foster & Mash, 1999; Strain, Barton & Dunlap, 2012). Thus, these measures need be taken into consideration to show efficacy of a programme.

Another inconsistency across this review is the duration of intervention phases. That is, the phase of research where parents receive training. Over the 14 studies sourced, there was a range from one hour of training to 14 months of training for parents. Nine of the studies did not give exact time periods of training rather, gave session numbers or frequency of meetings across a given time period. The range of the intervention phase may be a reflection of the needs of the differing participant (parent) and secondary participant (child) profiles across the studies. In contrast, the wide range of training sessions may also be a reflection of the under development and unestablished nature of this relatively new research area.

It is important to note that the differences present across the literature should not be viewed as negative per se, rather as reflections and directions for future researchers. It is advised that researchers take these inconsistencies into consideration when planning future research.

Limitations of Sourced Studies.

Within the 14 studies reviewed a number of limitations were noted, these included strict participant criteria, maintenance and generalisation measures and single subject design standards.

In the parent FBA training and implementation literature sourced there is strong focus on families with severe dysfunction or a child with a formal diagnosis. Table 1 indicates two studies of children with developmental disorders (Harding, Wacker, Berg, Lee & Dolezal,

2009; Marcus et al., 2001), one study on children with behaviour disorders (Fettig et al., 2015), one study with a child with language delays (Dunlap et al., 2006), four studies with children with autistic spectrum disorders (Frea & Hepburn, 1999; Koegel et al., 1998; Lucyshyn et al., 2007; Moes & Frea, 2002) and one study with children intellectual disabilities (Vaughn, Wilson & Dunlap, 2002). There were no 'typically developing' families represented. This is of concern as, it is important for researchers to investigate how to assist families who experience mild behaviour problems in order to prevent progress on an antisocial trajectory (Sanders et al., 2002). In addition, by working with families whose children engage in mild behaviour problems, an intervention with these families can be seen as preventive and thus divert the beginnings of persistent problem behaviour or the development of an antisocial developmental trajectory (Reid & Patterson, 1989; Sanders et al., 2002). No studies in the review reported including participants of minority ethnicities in their samples. Therefore, the exclusive participant demographic of dysfunction in a middle class Caucasian family places a limitation on the generalisability of the reviewed studies on the FBA parent training and intervention research to date.

Another concerning limitation of the parent FBA training and implementation literature reviewed is the minimal use of generalisation and maintenance measures in the studies. Of the 14 studies reviewed, no study published generalisation measures and only three measured maintenance of parent FBA procedures and intervention implementation (Fettig & Ostrosky, 2011; Marcus et al., 2001; Shayne & Miltenberger, 2013). Please refer to Table 2 in the column 'Maintenance.' This is of concern as generalisation and maintenance data is essential in determining the effectiveness of an intervention and its durability (Kern et al., 2006). Matson et al. (2009) reported that the most important component of any parent training programme is the extent that the programme promotes generalisation of skills from the training to the home setting. Therefore, this appears to be a necessary measure when

assessing the efficacy of a parent training programme. It is concerning that this limitation was identified as it is also noted in an early literature review by Carr et al. (1999).

A further limitation in the reviewed literature is the methodological and procedural inconsistencies. First, there is variety in the level of experimental control across the sourced literature. For example, not all studies reviewed reported a stable baseline measure. This is concerning as without a stable baseline it is difficult to assert whether change is due to the intervention or whether it is a natural occurrence (Fettig & Barton, 2014). When the What Works Clearinghouse (WWC) single-subject design standards are applied, approximately half of the studies in this review did not meet the desired standards.

As this research field is relatively new it was expected that limitations would be revealed in the review of the 14 studies sourced. Unfortunately the restricted participant demographics, minimal follow-up measures and not fully meeting WWC single subject design standards are all limitations which can restrict the generalisability of findings and assumed efficacy of parent FBA training intervention studies. It is important to note that all of these limitations can be remedied.

Parent Training and Implementation of Functional Behaviour Assessment Literature Review Summary.

To summarise, the overall the findings of the studies reviewed showed that parents can be successfully trained to deliver FBA informed interventions. These findings are important especially when there appears to be a lack of professional resources for families with children experiencing behavioural problems. Across the literature reviewed from the last 20 years there were similarities across the research methods used and the findings (refer to Tables 1 and 2). There are also some incongruences and limitations across measures and intervention duration which should be considered and addressed in future research. As a

general conclusion, the findings suggest that parents can learn and implement FBA and positive behaviour support strategies with success and the process of training parents to do this has benefits for the entire family system.

Table 2

Research Studies in the last 20 years on Training Parents in Functional Behaviour Assessment and Interventions. Programme Characteristics and Results

	Intervention Target							Intervention Programme				Results	
Authors	P	M	B	T	Tr	S	Ns	Research Design	Implementation Description	Setting	Programme Duration	Measured Variables	Results	Maintenance
Duda, Clarke, Fox and Dunlap (2008)	X	X			X			Multiple baseline, across four routines and quasi-experimental within routines.	Teaching specific to routines using collaboration, and modelling. PBS plan development and implementation, prevention strategy implementation and functional assessment strategies.	Individual training in home setting	NR – 'brief coaching'	Child AB Parent FS implementation	Child AB increased: Routine 1: 2.3-4.8 Routine 2: 2.0-4.8 Routine 3: 2.2-4.3 Routine 4: 1.3-4.7 Parent FS implementation increased: Routine 1: 2.7-4.8 Routine 2: 2.5-4.3 Routine 3:3.3-4.3 Routine 4: 1.7-4.7	NR
Dunlap Ester, Langhans and Fox (2006)	X				X			Two multiple baselines across participants. Baseline, Parent Training and Intervention	Teaching parents strategies specific to routines using, modelling and practice opportunities with the trainer. Specifically, functional communication training and behaviour support	Individual training in home setting	1 hour of parent training	Incorrect parent attention to child DB. Prompts for replacement behaviour. Child AB.	Incorrect parent attention to child DB decreased: Participant 1: 47.5% - 96.3% at baseline to 0%-33.3% after intervention Participant 2: 66.7% - 84.7% at baseline to 0%-13.1% after intervention. Prompts for replacement behaviour increased: Participant 1: 0% to 25%-88.9%	NR

				plan implementation.				Participant 2: 0% to 75%-100% Child AB increased: Participant 1: 0% to 56.5%-100% Participant 2: 0% to 85.7%-100%	
Fettig and Ostrosky (2011)	X		Multiple baseline across participants. Pre Baseline, Baseline, Parent intervention, Child intervention and Follow- up	Teaching routines using collaborative approach, cooperative problem solving and guided self-reflection. Functional assessment based strategies including replacement & prevention strategies.	Individual training in a home setting	6 x 30minute sessions for participant 1 10 x 30 minute sessions for participant 2	Child DB Parent FS	Child DB decreased: Participant 1: 31.5% -6.8% Participant 2: 35.8% -11% Parent FS implementation increased: Participant 1: 41% - 97.4% Participant 2: 17.7% - 93%	Child decreased DB Participant: 1:5% Participant 2: 10% Parent FS implementation increase was maintained. Participant 1: 97% Participant 2: 100%
Fettig, Schultz and Sreckovic (2015)	X		Multiple baseline across participants. Baseline, Intervention, Coaching and Withdrawal of Coaching	Teaching parents strategies that are specific to routines using observations, behaviour support plan and functional behaviour strategy, development and implementation training. After	Individual training in a home setting	NR	Child DB Parent FS implementation	Child DB decreased: 65.4% - 13.3% Parent FS implementation increased: 58.3% - 100%	NR

				intervention phase delayed coaching was provided then withdrawn.					
Frea and Hepburn (1999)		X	Controlled case studies with two or three phases: Baseline, Manual Intervention and one family required additional instructional session.	Teaching parents strategies specific to routines using a parent manual. Specifically training parents in carrying out Function assessment and developing and implementing consequent interventions such as replacement behaviours and prevention strategies.	Individual training in home setting	Two meetings per week for a fortnight ranging from 16-38minutes.	Child DB	Child DB: Participant 1: *M* = 8.8per minute in baseline this did not drop until participants received an additional instructional session. Participant 2: *M* = 3.4per minute in baseline this dropped significantly as soon as parents read manual.	NR
Galensky, Miltenberger, Stricker and Garlinghouse (2001)	X		Multiple baseline across participants. Baseline and Functional treatment.	Teaching parents strategies specific to routines using a collaborative approach, practice opportunities and performance feedback. Specifically teaching function	Individual training in home setting	NR	Child DB 1.Refusal 2.Inappropriate play 3.Expulsions 4.Elopement	Child DB had varying results: Participant 1: Behaviour 1: 16.4% - 7.9% Behaviour 2: 25.6% - 10.6% Behaviour 3: 1.3% -1.8% Behaviour 4: 10.7% -10.1% Participant 2: Behaviour 1: 3.4% -3.6% Behaviour 2: 17.9% - 6.4% Behaviour 3: 2.4% -0.8% Behaviour 4: 14.7% - 1.2% Participant 3: Behaviour 1: 22.9%-79.8%	NR

				based behaviour strategies.				Behaviour 2: 17.9% - 6.4% Behaviour 3:1.1% - 0.6%	
Harding, Wacker, Berg, Lee and Dolezal (2009)	X		X	Case stud across Pre Baseline, Functional Assessment, Baseline, Parent intervention.	Teaching parents strategies specific to routines using, modelling, written instruction and performance based feedback. Specifically training parents in functional communication training and functional behaviour based strategies.	Individual training in home setting	Weekly one hour visits for 14 months.	NR - Case study Specific	Results showed reduction in destructive behaviour and increase in on task behaviour.	NR
Koegel, Stiebel and Koegel (1998)	X	X		Multiple baselines across three families with three phases: Baseline, Intervention and Maintenance	Teaching parents strategies specific to routines.	Individual training in home setting	NR	NR	Reductions in aggression, increase in parent and child happiness and increase in society interactions.	NR
Lucyshyn, Albin, Horner, Mann, Mann, and		X	X	X	Longitudinal study, Multiple baseline across routines	Teaching parents strategies specific to routines using, modelling, collaborative problem solving and intervention	Individual training in home setting	23 weeks	Child DB	Intervention resulted in 75% reduction in Child DB.	NR

Wadsworth (2007)			implementation self-monitoring. Specifically, positive behaviour support training and implementation.					
Marcus, Swanson and Vollmer (2001)	X	Multiple baselines across participants. Baseline, Intervention, role play, model, feedback, delayed feedback, observation and booster.	Teaching parents strategies specific to routines using, role plays, modelling, practice opportunities and performance based feedback.	Individual training in classroom setting	7 weeks	Parent FS implementation Appropriate Parent response to Child DB Appropriate Parent response to Child AB Child DB/AB	Parent FS implementation Participant 1: 87.5% - 96.7% Participant2: 11.8% - 81.3% Participant 3:24.5%- 90.5% Appropriate Parent response to Child DB Participant 1:51% - 97.1% Participant2: 0% - 93.5% Participant 3: 1.8% - 63.9% Appropriate Parent response to Child AB Participant 1: 44.4% -97% Participant2: 0% - 94.7% Participant 3: 0% - 67.4% Child DB/AB Participant 1: DB:1.1% - 6.7% AB: 57.3% - 96.7% Participant 2: DB: 13.3%- 15.1% AB: 16.4% - 66.1%	Parent FS implementation Participant 1: 100% Participant2: 100% Participant 3: 100% Appropriate Parent response to Child DB Participant 1: 100% Participant2: 100% Participant 3: 100% Appropriate Parent response to Child AB Participant 1: 100% Participant2: 100% Participant 3: 100% Child DB/AB Participant1: DB: 6.7% AB: 90% Participant2: DB: 0% AB: 100% Participant3:

									Participant 3: DB: 1.4%- 0.4% AB: 45.8%- 90.4%	DB: 0% AB: 80%
Moes and Frea (2002)	X	X		X	X	Multiple baseline across participants. Baseline, Intervention training, Contextualised Intervention and Follow-up.	Teaching parents strategies specific to routines using, modelling, practice opportunities, collaborative problem solving, and performance feedback. Specifically, functional communication and functional behaviour assessment	Family training in home setting	1-2 sessions a week in phase 1, then 1 session every 2 months until 12month mark.	Child DB Parent FS implementation Treatment fit with family context	Family context consideration assists the stability and durability of reducing child DB. *Exact details are shown on the figures within this article.*	NR
Shayne and Miltenberger (2013)			X			Multiple Baseline across participants. Baseline, Post treatment and Follow-up	Teaching parents strategies that are specific to routines using observations, role play, PowerPoint, group discussion, behaviour support plan and functional behaviour strategy, development and implementation training. Specifically	Group training in classroom	1 x 3hour class	Correct responding to dependant variables (ABC recording, summary statement and treatment choices).	ABC recording: Participants combined:84% -95% Summary Statement Participants combined:35% - 98% Treatment Choice: Participants combined: 58% -99%	ABC recording: Participants combined: 92% Summary Statement Participants combine: 93% Treatment Choice: Participants combined: 86%

				focusing on ABC recording and treatment selections					
Vaughn, Clarke and Dunlap (1997)	X	X	Multiple baselines across two settings. Baseline, Intervention and Follow-up.	Teaching parents strategies specific to routines using, practice opportunities during routines.	Individual training in two applied contexts: bathroom and restaurant	Twice a week	Child DB Engagement	Child DB decreased. *Exact details are shown on the figures within this article.* Engagement increased: *Exact details are shown on the figures within this article.*	NR
Vaugh, Wilson and Dunlap (2002)		X	Multiple baselines across three problem behaviours. Baseline, Intervention and Follow- up	Teaching parents strategies specific to routines. Specifically positive behaviour support strategies.	Family training in home setting.	NR	Child DB	US	NR

Note. AB = appropriate behaviour; B = Bedtime; BSP = behaviour support plan; DB = difficult behaviour; FS = Function based strategies; M = meal/eating times; NR = not recorded; Ns = not specified; P = play/non specified time; S = Social, Community Interactions; T = toileting; Tr = Transition times; RB = replacement behaviour; US = information unable to be sourced; X = measured.

Part III

TRAINING CONTENT AND DELIVERY OF FUNCTION-BASED INTERVENTIONS.

The aim of this section of the literature review was to review literature on parent intervention training content and delivery of function based interventions. The studies included in this section were filtered through the following criteria: focus on training parents in intervention techniques for child problem behaviour, children under 12 years of age and all studies adhered to experimental design. The literature search for peer reviewed articles was undertaken on PSYCINFO and Google.scholar databases. The following descriptors were searched; delivery of parent training, parent intervention, parent based intervention, parent therapist, parent training, parent training content, functional behaviour assessment for parents, function intervention and functional parent intervention.

Setting for Parent Therapist Training

Researchers have consistently shown that training parents to be the therapist for their child is effective. However, literature is divided when it comes to deciding what the most effective training setting is, in that, is it one-to-one individual work or in a group setting? Historically, researchers worked individually with parents in a one-on-one intensive programme setting with programmes based on the principles of behaviour (Hawkins et al., 1966; Williams, 1959). Individualised studies are still undertaken, however, these studies tend to be as result of research being case-studies rather than developments in support of individualised training. As there appears to be an increasing demand for parent training as well as limitations to the generalisability of the findings of such small studies, researchers have been drawn to group training programmes. An advantage of group training is that it can be provided to many more parents with similar child problem behaviour simultaneously.

Webster-Stratton (1984) published an historically significant study which showed that group parent training was able to be as equally effective as individualised training. She conducted a randomized group trial which compared 9 weeks of individual training therapy and 9 weeks of group therapist led training to 35 mothers of children with conduct behaviour problems. Results showed that both parent training programmes produced behaviour change with a decrease of noncompliance in the children and these gains were maintained at a 1-year follow up. There was also no significant difference in the attitudinal and social validity measures between the two groups. These, results suggest that group training programmes are equally effective in changing child behaviour as individual training. From this initial experiment, group parent training has grown in the conduct behaviour field.

From 1984 there have been two group parent programmes of note. These include the WINNING Program created by Dangle and Polster (1984) and, The Responsive Parenting Program by Hall (1984) as cited in McNeill et al. (2002). These programmes developed from the Webster-Stratton (1984) programme and focused on teaching parents appropriate behaviour management strategies using reinforcement principles as well as how to observe their child's behaviour and use social learning principles such as modelling to shape and replace inappropriate behaviour. More recently, there has been the development of the Triple P- Positive Parent Program (Sanders, 1999). Similar to the individualised programmes, this training scheme was developed to teach parents to manage their child's behavioural difficulties through methods founded in social learning principles (Sanders et al., 2002; Sanders, 2003). Triple P works from the theory of minimal sufficiency in that it provides the minimally sufficient amount of resources needed to result in effective change (Sanders, 2003) As a result, Triple P has different tiers of intervention intensity depending on the needs of the child and their family (Sanders, 2003). Triple P has been researched across different demographics and continues to show positive results for creating behaviour change (Sanders,

2003). One limitation with Triple P is the duration of the intervention. The intervention spans approximately nine weeks and involves many hours of contact time between parent and clinician. This is a limitation for potentially high dropout rates and only partial completion of the programme which is a limitation associated with extensive time commitment interventions (Gross, Julion & Fogg, 2001).

Group Parent Training. There are a number of advantages to training parents in a group. First, group training allows multiple parents to be taught simultaneously thus is both significantly more time and cost effective than individual therapy and training (Christensen, Johnson, Phillips & Glasgow, 1980). Christensen et al. (1980) conducted an investigation of 36 families with children expressing problem behaviour between the ages of 4-12 years old who were randomly assigned to individual, group or minimal contact training conditions. The results showed individual and group training were significantly superior to the minimal contact condition after comparing parent reports and in-home behaviour assessments. Moreover, participants in the group setting therapy condition received half as much contact time with the professional and showed no significant difference in behaviour assessments and parent reports to those participants in the individual therapy condition. This study suggests that group training is able to produce the same level of effectiveness in behavioural results with less time and money expenditure**.** In support of this, the systematic review of Dretzke et al. (2005) investigated 37 randomised control trial studies in order to draw conclusions about the efficacy and cost effectiveness of group behavioural intervention parent training. The findings were in alignment with previous systematic reviews and indicated that group training for parents with children with problem behaviour is effective in producing behaviour change whilst also being significantly more cost effective. Additionally, Dretzke et al. (2005) found that group training can cost around one third of the price of individual therapy. Dretzke et al. (2005) suggest that because group behavioural intervention parent training has been shown as

valuable, future focus should be on determining a superior universal framework for researching group parent training using more sounder methodologies.

Secondly, a group setting for parent intervention training can also be advantageous for parental emotional and social wellbeing. For example, parent training within a group setting has been shown to reduce stress (Pisterman et al., 1992) and increase empowerment levels (Minjarez et al., 2012) in parents when comparing baseline and follow-up measures. The randomised control study by Pisterman et al. (1992) showed that group parent training can result in reducing child problem behaviours and have a positive influence on parent stress levels and sense of competence. Pisterman et al. (1992) compared 91 families randomly allocated to either waitlist or parent training conditions. Results showed the reduction of parent stress and increase in self-competence was present independent of changes in the child's behaviour. Thus, suggesting that the group setting itself was influential in the beneficial emotional developments of the parent. McConachie and Diggle (2007) and McGaw, Ball and Clark (2002) have shown that group training facilitates mutual social support between parents. McGaw et al. (2002) provided a group intervention to 12 parents over 14 weeks. The parents learnt skills and parenting practices specific to their home environments. Researchers compared baseline and follow up measures of the parents self-concept and perception of quality of social relationships. The results showed that both measures increased significantly at completion of the group sessions. Additional follow-up data showed that the group setting promoted the parents to make new friends and other positive social changes within their familial environment. McGaw et al. (2002) showed the influence that group training can have on parent's social wellbeing as well as having emotional wellbeing benefits.

In summary, while training parents as their child's therapist began in individualised training settings as time has progressed, it appears that group training has more benefits for

the parent and child together. Group parent training is also both time and cost effective whilst still maintaining the accuracy of individual training. This is beneficial for both the researcher and parent. Group training has been shown to promote emotional and social therapeutic benefits for the parents as well as for the child and the rest of the family. Given the evidence supporting group parent training, this aspect needs to be a focus area in future research projects with the aim to further develop the training components to promote prosocial behaviour in children and support parents to learn prosocial ways to interact with their children.

Parent Programme Development and Implementation: Content, Delivery and Duration

Historically, applied behaviour analysis is the most prominent theory which underpins the content of parent training programmes to address child problem behaviour. Functional Behaviour Assessment (FBA) and Positive Behaviour Support (PBS) are processes and strategies which originate from this theory and have been shown to be effective in reducing problem behaviour and promoting positive development trajectories in young children (Fettig & Barton, 2014). Unlike other areas of programme development, there appears to be no consensus among researchers as to what duration of parent programme is most beneficial for sustained long term change in parent and child behaviour. However, what is apparent is that parents can successfully implement new skills and knowledge after relatively short duration programmes (Dunlap & Fox, 1999; Shayne & Miltenberger, 2013).

Content: Functional Behaviour Assessment (FBA) and Positive Behaviour Support Plans. Many researchers to date have tried to increase parent knowledge and skill so that parents can appropriately intervene and teach positive behaviours to their children. This objective is achieved when training programmes follow the FBA framework (Matson et al., 2009). The FBA framework refers to the identification of antecedents, behaviour, consequences and environmental factors from which a hypothesis statement regarding the

function and purpose of behaviour is derived. This information is consequently used to create Positive Behaviour Support plans (PBS) (Sugai et al., 2000). The reason FBA procedures are highly valued in parent training programmes is that if parents can learn to implement this framework there is increased understanding of the problem behaviour which in turn provides the framework for an individually relevant, effective and efficient PBS intervention plans (Sugai et al., 2000).

A PBS plan is a comprehensive plan designed to promote appropriate behaviours whilst decreasing inappropriate behaviours (Sugai, Horner & Gresham, 2002). Within a PBS plan there are antecedent manipulations, replacement behaviours and consequence components all which aim to build and encourage the development of appropriate behaviours which serve the same function as the presenting problem behaviours (Sugai, Horner, & Sprague, 1999). Antecedent manipulation refers to the changing of environmental and personal factors that are discriminative stimuli or have established a function for the problem behaviour. If antecedents can be prevented or redirected this in turn influences the presence or not of a problem behaviour (Sugai et al., 1999). Replacement behaviours refer to teaching an appropriate behaviour which is incompatible whilst meeting the function of the problem behaviour (Horner, Albin, Sprague, & Todd, 2000). Consequences are actions or factors that occur after the replacement or problem behaviour has occurred. Consequences can be reinforcing which will increase the likelihood of replacement behaviour occurring again or, punishing which will decrease the likelihood of problem behaviour reoccurring (Horner et al., 2000).

Training Steps for Parents learning Functional Behaviour Assessment and Positive Behaviour Support. The research suggests that parents can learn the steps of a FBA and positive support plan. The first step in parents learning to implement FBA and PBS procedures is the training of behavioural data or information collection. Second, when parents

are able to identify behaviour correctly they are taught to identify the Antecedent-Behaviour-Consequence (ABC) pattern. Parents can be trained to collect this information through direct observations, answering reflective interview questions or by rating scales. Once parents can do this, they learn the third step which is how to develop the summary statement which gives the function of the behaviour. The summary statement uses information from the ABC pattern and is taught to be composed of four components: problem behaviour, predictive antecedent, maintaining consequence and environmental setting or event. Production of an accurate summary statement is an essential skill for parents to learn if they are to make use of their training across additional settings and contexts. The fourth training step for parents is to learn how to create a 'competing pathway' diagram or statement. When creating competing pathways, the fifth step of the FBA process is taught and parents are trained to identify: appropriate behaviour, an alternative replacement behaviour which has the same function but is more appropriate than the problem behaviour, and consequences that either occur naturally or need to be present to increase the likelihood of the replacement behaviour and decrease the likelihood of the problem behaviour being used. The final step in parent FBA and PBS training is to train parents to develop a PBS plan which is built from the preceding training steps. Parents are taught to create PBS plans which incorporate a way of teaching the selected replacement behaviour, identification of how antecedents may be manipulated to decrease problem behaviour and increase replacement behaviours, appropriate consequences that will discourage problem behaviour or will reinforce the continuance of the replacement behaviour and how to minimise environmental settings factors (Sugai et al., 2000).

In conclusion, when the components of PBS are separated, the link between FBA procedures and PBS creation is obvious. All components of PBS plan can be designed after data is collected from an FBA. In this sense, FBA information serves as the foundation of an effective behaviour support plan (Horner et al., 2000; Sugai et al., 1999). The success and

effectiveness of FBA and the PBS processes was first documented in the late 20th century by Iwata et al. (1982) in a study of children with self-injurious behaviour. Since 1982 training parents in FBA processes now consistently reported as essential in achieving positive outcomes in relation to parent intervention to problem behaviour.

Programme Delivery: Teaching Methods and Materials.

Researchers have investigated different learning and teaching methods and resources to train parents in child behaviour management skills. Teaching methods which are reported as the most frequently used key components in parent training sessions are handbooks, role plays with feedback, modelling demonstrations, instructional videos, written resources and knowledge questionnaires (Fettig et al., 2015; Marcus et al., 2001; McNeill et al., 2002; Shayne & Miltenberger, 2013). These methods are seen as the most appropriate to use for skill and knowledge consolidation in function-based intervention parent training (Fettig & Barton 2014). These techniques are recognised as being able to promote rapid skill acquisition and high implementation accuracy of function based interventions when used collectively (Lerman, Swiezy, Perkins–Parks & Roane, 2000) as opposed to programmes which include multiple training techniques as these are considered to be too expensive. However, Lerman et al. (2000) suggests that a simple collaboration of written tasks, parent manuals, instructional videos and role play rehearsal opportunities is all that is necessary for a successful parent training programme.

Many researchers have investigated whether instructional books alone can act as meaningful intervention and have had conflicting results. Baker, Ambrose and Anderson (1989) suggested that instructional handbooks were all that was necessary to create parental behaviour change. Conversely, Lerman, Swiezy, Perkins-Parks and Roane (2000) showed that use of an instructional handbook alone for parent intervention was only beneficial for certain components such as learning to give praise and encouragement. Their results showed

that even in the praise and encouragement condition, further verbal instruction was needed to increase intervention accuracy above the set criterion. As a result, Lerman et al. (2000) proposed that a combination of verbal and written instruction would be significantly more effective in teaching parents how to implement behaviour management strategies. In agreement with this, Sanders (1996) suggests that manuals in conjunction with interactive activities, role play and instructor feedback is the most efficient and effective combination.

Research suggests that the efficacy of teaching methods is dependent on the complexity of the skills being taught within the parent programme and participants familiarity to the programme components (Lerman et al., 2000). As an example, parents may be readily able to perform simpler extinction procedures where they actively ignore their child after verbal instruction. Conversely, parents may need supplementary learning and teaching resources for multifaceted procedures which are more complex and less familiar to them such as providing contingent descriptive praise/feedback. Furthermore, researchers have identified that when only one module of learning is used, such as only written tasks or singular instruction such as parent manuals, the outcomes of the parent training programme is unreliable and less effective when compared to multiple module programmes (Lerman et al., 2000). In support of this finding, the study of Frea and Hepburn (1999) found that parents were able to learn functional assessment based skills and create their own intervention plan from a manual based programme. Their controlled case study showed comparative results where one family successfully meet the researchers' objective and created and applied appropriate functional assessment based intervention without any researcher guidance. Alternatively, the second family required additional help from the researcher through role plays and practice opportunities before the intervention effect was shown.

In conclusion, there is agreement across the literature that the incorporation of multiple teaching methods and resources is the most effective way of delivering parent

training programmes and that functional behaviour assessment and positive behaviour intervention plans are the most beneficial for this population. The combination of written manuals and role play have been shown to promote rapid skill acquisition and increase the probability of new skills and knowledge to be maintained and generalised by parents beyond the training environment. Given the success of these teaching methods and materials future researchers should work to include these when developing further studies.

Programme Delivery: Additional Supports.

Whilst there are teaching methods which are consistently used and have shown their reliability and validity in parent training, there are new additional supports being introduced in order to enhance learning such as video feedback and supplementary coaching.

Video Feedback. Video feedback has been shown to be an effective training tool for parents of young children to teach prosocial skills and reduce problem behaviour. Video-feedback is the process of videoing natural family interactions without researcher interference and then reviewing the recordings with parents for constructive feedback purposes (Fukkink, 2008). Video-feedback allows parents to see their interactions, reflect and consider their actions and their child's reaction to the problem behaviour (Poslawsky et al., 2014). In practical terms, the researcher edits recordings from a natural family environment to capture interactions that need to be addressed or praised. Fukkink (2008) suggests the edited recording is between four 30-second clips to one 15 minute resource. During the 'feedback' stage of the process the researcher will point out different behaviours of focus and together the parent and researcher will analyse the parent's responses. Following reflection on the recordings it is essential that the feedback process is finalised with positive feedback to contribute to the developing relationship between researcher and parent (Claiborn & Goodyear, 2005). It is thought that by showing parents their interactions with their child they

become sensitive and aware of the inappropriate or disadvantageous parenting practices they use (Poslawsky et al., 2014).

Evidence to support the use of video feedback is provided in the meta-analysis of Fukkink (2008) which evaluated 29 video feedback studies and concluded that when video feedback was used in interventions there were less problematic interactions between parent and child. However, Fukkink (2008) discloses that video-feedback is not a singular component that will be successful on its own nor is it the most crucial component in intervention. Rather, when video feedback is used as an additional support to intervention programmes it has reliable success. An example in support of this finding is the research of Phaneuf and McIntyre (2007) which looked at the implications of using individualised video feedback alongside the delivery of Webster-Stratton's group intervention training programme (2001; 2002). Results of the multiple baseline design across four mother-child dyads showed that when individualised video feedback accompanied the group training, behavioural objectives were met and maintained at a more significant level than when no video feedback was used. Given the numerous benefits associated to this intervention strategy it would be wise for future researchers to investigate technology developments that will assist in this type of additional support to be more practically available.

Although video feedback has been shown to be beneficial when used with parent training programmes there are some limitations which hinder the universal use of this strategy. The first limitation is that video feedback strategies are not suitable to address wider familiar circumstances such as parental psychopathology or poverty (Fukkink, 2008). A second limitation to the use of video feedback is that the creation of the resource requires significant time and skill which is not always feasible (Fettig et al., 2015). Lastly the generalisability of results thus far is limited due to restricted participant groups (Fukkink,

2008). In light of these limitations, it is clear that this strategy needs to be investigated and developed further as a prospective intervention strategy for parent behaviour programmes.

Coaching. A second additional support resource that is under current investigation is the role of coaching in parent function-based intervention training. The recently published study by Fettig et al. (2015) included an additional delayed coaching phase in their parent FBA training programme for three parents of children with problem behaviour. The parents collaborated with the researcher in forming a behaviour intervention plan based on the results of their child's FBA. Following this, parents were trained to implement the intervention plan and were immediately assessed. Researchers then coached parents through the behaviour plan and corrected any errors they were making in the implementation of the strategies. Subsequently, coaching was then withdrawn and parents were assessed again on how they implemented the intervention and their child's consequent behaviours. Results revealed that before coaching was available the parents carried out FBA procedures inconsistently. However, once coaching was introduced the parents implemented the FBA procedures with high fidelity with consistently high accuracy. This improvement was maintained once the coaching support was removed. In addition, the rate of child problem behaviour significantly decreased during the coaching phase and was maintained to the two month follow-up. The presence of coaching made a significant difference to the quality of intervention the participants delivered. This was the first study to focus on the role of a coaching resource in parent FBA training and intervention implementation and revealed another aspect of parent function based intervention training which should be considered in future research.

In summary, although researchers have begun to look at additional strategies to increase parent knowledge and skills in FBA and FBA informed behaviour planning it is an area which is relatively unexplored as a result of resource constraints or newly discovered

adaptations. Video feedback can be seen as an expensive resource both in time and cost however the benefits associated with video feedback cannot be ignored. Additional coaching is also a resource expense but this too has been shown to be effective. The future direction appears to be to investigate what additional tools and processes are required to enhance parent training in function based intervention planning.

Duration of Parent Programmes.

Researchers thus far have shown no agreement in what programme duration is the most beneficial for parent and child behaviour change. There are variations of time periods documented by researchers which are often dictated by the nature of the study, that is, the duration of the parent programme tends to be decided by either or all of the following: hypothesis and purpose of the study, population in focus, funding and, time constraints of the researcher. For example, timelines of parent FBA training programs range from one two-hour session (Fettig et al., 2015) to seven weeks of one or two hour sessions (Marcus et al., 2001). For instance, the research by Marcus et al. (2001) trained four mothers over one or two one-hour weekly sessions individually over a seven week period within a home setting. Parents worked through an eight step training protocol and had to meet pre-set criterions to progress to the subsequent step. Results showed that all parents were able to successful implement a function-based intervention programme. In comparison, Shayne and Miltenberger (2013) trained eight foster parents in FBA procedures in one three-hour session in a group setting. The results indicated that all parents reached at least 91% accuracy in FBA implementation measures and maintained their knowledge to 67-100% accuracy in the follow-up measures.

The findings of Shayne and Miltenberger (2013) suggest that parents are able to be trained in a short period of time on how to perform and implement FBA without compromising accuracy. In support of this research evidence, a meta-analysis by Bakermans-

Kranenburg, Van Ijzendoorn, and Juffer (2003) produced a 'less is more' hypothesis in regard to programme length. Bakermans-Kranenburg et al. (2003) concluded that shorter parent intervention programmes were more effective if the programme had a clear cut behaviour focus. In support of this, Fukkink (2008) developed a similar hypothesis 'short but powerful'. This hypothesis was in alignment with the 'less is more' suggestion with regard to intervention training being more effective when carried out over a short duration (Fukkink, 2008). However, the 'short but powerful' hypothesis also recognised there is a flooring effect limit to minimal training times (Fukkink, 2008).

Conclusion.

In conclusion, there is sound evidence to support the use of group settings for training parents in functional assessment and function-based behavioural intervention implementation. This is both cost and time effective and provides additional benefits for parents and their families. The inclusion of FBA and positive behaviour support strategies taught through multiple media and materials such as instructional handbooks, role play and vignettes is suggested to influence positive outcomes in relation to implementation and maintenance of parent intervention involving problem behaviour. Furthermore, there are innovative investigations in terms of video feedback and additional coaching which can be used to increase positive outcomes in parent training programmes. However, video feedback can be problematic due to the time, resource and financial cost that can accompany the creation of this resource. In conclusion, it is clear that training parents in functional assessment and function-based behavioural intervention implementation is beneficial for the parent and child alike thus, prospective researchers should continue to investigate its effectiveness.

The Research Aim of the Current Study

The literature reviews above have indicated that training parents in FBA procedures and positive behaviour intervention strategies can be successful in reducing problem behaviour in children of all abilities and stages of development. The above review also indicated that parents and children receive greater therapeutic benefits when parents are trained in a group setting. There is also consensus on the essential training components, delivery methods and programme resources which are needed to create and deliver an effective parent training programme. However, training parents of typically developing children from New Zealand in FBA procedures and assessing their progress within their home environment has never been investigated. In light of this, the aim of the current research project was to investigate whether parents of children in New Zealand with mild to moderate problem behaviour at family routine times such as dinner or bath time could, after a series of two-two hour group workshops, learn to identify the function their child's problem behaviour and then develop and implement a simple positive behaviour intervention plan based on the function of the behaviour as identified by their child's FBA results in their home setting.

The effects of the group FBA parent training programme will be determined by the results of the following research questions.

Research Question 1: Can parental knowledge of Functional Behaviour Assessment and function based intervention strategies increase and be maintained throughout the series of group workshops?

Research Question 2: Can parents generalise this knowledge from the workshops to their home environment and conduct an intervention programme based on their group workshop knowledge and skill?

Chapter 3

METHOD

The following chapter is divided into two parts (3a and 3b). The first section describes the development of the *Parent Empowering Programme (PEP*). This includes the development of the resources and materials and the implementation of the programme. The second part of this chapter outlines the experimental procedures of this study. This includes the ethical approval processes, participant recruitment, data collection and analysis procedures.

Setting

The two parts to this project were completed across three settings. The development of the *Parent Empowering Programme (PEP)* was completed at the University of Canterbury study facilities. The demographic interviews and parent training workshops were held at the participant's local school in a classroom which had facilities for audio and visual presentations and a flexible seating arrangement allowing a large circle for the group workshops. The school was a medium sized primary school in a town in the South Island. Participant in-home video recordings and diary entries were undertaken in the participant's own home.

Chapter 3a

DEVELOPMENT OF THE PARENT EMPOWERING PROGRAMME (PEP)

The Parent Empowering Programme (PEP) content and materials were created with typical New Zealand families in mind. The sections in this part of the chapter describe how the PEP programme was developed. This includes presentation of the research which

informed the content of PEP, structure, delivery and the PEP parent handbook and video vignette resources that were developed.

Parent Empowering Programme (PEP) Workshop Content.

The aim of Parent Empowering Programme (PEP) was to develop a programme so that parents could complete a functional behaviour assessment (FBA) with their child in their home setting and then, based on the function of their child's behaviour, implement some positive behaviour support (PBS) strategies during a problematic family routine. The workshop content was designed so that parents could develop an understanding of the function of behaviour and learn how to select and implement appropriate antecedent manipulations or consequent interventions based on the child's behaviour function.

The content on the following aspects of functional behaviour assessment and positive behaviour support plans were included: objectivity and behaviour, antecedents, consequences, function of behaviour, functional behaviour assessment, positive behaviour support strategies and, how to develop a behaviour support plan. The choice of content was selected from evidence-based practice from the parent-based behavioural interventions literature (Fettig & Barton, 2014; Fettig et al., 2015; Fox et al., 2002; McNeill et al., 2002; Mitchell et al., 2013; Owen et al., 2012; Reid et al., 1999; Sanders, 1999; Sanders et al., 2001; Shayne & Miltenberger, 2013). Moreover, the development of content was influenced by what has been shown to be effective in leading international parent interventions such as Triple P (Sanders et al., 2002; Sanders, 2003) and the Incredible Years (Webster-Stratton, 1984) programmes.

Behaviour Principles. To begin, the PEP workshop resources covered goal setting. Research has shown that when parents set goals they are likely to put more effort during and outside of the training programme to achieve their goals (Fettig et al., 2014). Following this,

parents were informed of the importance and benefits of keeping to daily routines for both themselves and their child. The PEP workshop resources then covered content on intervention and behaviour management strategies that apply to 'typical' routine-time problem behaviour in the home. All of the positive behaviour support strategies that were included in this programme were in alignment with behaviour theory and positive behaviour support strategies (Dunlap & Fox, 1999; Skinner 1963). The following strategies were selected as content in PEP and are presented in the order that they appear in the workshop/programme resources.

Firstly, attention or 'catch them when they are good' as it was referred to in the programme was included as a result of its effect on shaping prosocial child behaviour. Attention can be used as either a reinforcer or punisher for behaviour depending on whether the attention serves as rewarding or aversive to the child (Owen, Slep, & Heyman, 2012). Positive attention should be used at a ratio of five positive comments to one negative comment and this ratio was included in the programme as the focus was on identifying and increasing parents' positive interactions with their children.

Secondly, positive reinforcement was presented as 'descriptive praise and encouragement' in the programme. This strategy increases appropriate behaviour or replacement behaviours. Praise was taught to be provided contingently on the behaviour that the parent wanted to increase.

Thirdly, inclusive time-out was presented in the programme as 'sit and wait'. Non-exclusionary methods of time-out are more generally accepted by parents, teachers and society (Kazdin, 1980) but in order for the parent to show the child the correct replacememt behaviour, 'sit and wait' was selected as it placed the child within sight of where the problem behaviour occurred. This strategy teaches parents to remain calm and then once the child is calm the parent shows the child what to by modelling the behaviour they want to see. When

used effectively, 'sit and wait' provides potential modelling opportunities as the child can observe the appropriate behaviour and once they have engaged with it, they receive positive attention in the form of descriptive praise from their parents.

Lastly, extinction or 'planned ignoring' as it was referred to in the programme is a commonly reported strategy for managing problem behaviour. That is, the parent 'ignores' minor problem behaviour such as whinging and whining and only attends to the child when they are 'doing the right thing.' Descriptive praise of the appropriate behaviour then occurs. In this manner children learn that to get their parents attention, they should engage in prosocial behaviour. The key feature of this strategy for parents was to remain calm and quiet. Extinction has been shown to be an effective behaviour management strategy for parents to use particularly at transition times and bedtimes (Cote, Thompson & McKerchar, 2005; Reid, Walter, & O'Leary, 1999).

Functional Behaviour Assessment. After the above behaviour management strategies were taught, the content of the PEP programme focused on functional behaviour assessment and behaviour support plans.

The antecedent-behaviour-consequence (ABC) behaviour pattern was included to teach parents how to record behaviour and how to identify the function of behaviour. By teaching this, parents learned that there are predictable relationships between the different factors which contribute to the maintenance of problem behaviour (Morenoa & Bullockb, 2011). Furthermore, having the skills and ability to describe an ABC behavioural pattern allows for identification of the function of behaviour which consequentially provided for the development of a function-based intervention/support plan for the parent to follow.

The programme resources then covered the development of a function-based behaviour support plan. The support plan placed importance on teaching desirable replacement behaviour and antecedent manipulation which, in the programme, was referred

to as ‘prevention strategies’ (Morenoa & Bullockb, 2011; Sanders, 1999). Parents were also taught how to identify appropriate consequences based on the ABC observations and initial interview information.

Parent Empowering Programme (PEP) Content Structure.

The workshops were structured in such a way that each subsequent step of the workshop built on what had been presented and discussed previously. Explicit links are made back to previously mentioned content and by structuring the programme in this way parents were scaffolded from general behaviour knowledge to specific behaviour function-based intervention skills. As an example, parents began with learning to identify behaviour patterns, antecedents and consequences then they progressed to recognising the function of behaviour and how to use the function to formulate strategies for a behaviour support plan and then to implement this plan.

Parenting Empowering Programme (PEP) Delivery.

The programme content was delivered in two, two hour workshops, with each workshop divided into five sections. The delivery time was directed by the work of McNeill et al. (2002) and Shayne and Miltenberger (2013) which showed that parents can learn FBA processes and function-based interventions in a short period of time.

The researcher was the workshop facilitator and delivered a verbal presentation which was complemented with visually projected powerpoint presentations and a parent handbook (refer to Appendices A, B and C respectively for a copy of these resources). The use of the powerpoint presentations, verbal instructions and a parent handbook allowed the parents to interact with a variety of learning materials specifically designed keep the parents focused and content flowing. Two small intermissions were planned every 40 minutes throughout both workshops.

Workshop 1. The first workshop consisted of (1) an introduction to the programme, (2) a baseline knowledge quiz, (3) a functional behaviour assessment and function-based positive behaviour support strategy teaching phase, (4) home-based task discussion and (5) debrief and final discussion.

The first section, introduction to the programme, focused on building a trusting and supportive environment for parents and prompted questions about the programme. In this section confidentiality was discussed with parents and they were informed that any personal information and anything they shared during the workshops would be kept confidential. The second section, the baseline knowledge quiz, involved parents completing the first of their two individual quizzes in silence. The third section, the teaching phase, focused on looking at behaviour in objective terms. In this phase parents considered what behaviour looked like, how to measure behaviour and what factors influenced behaviour. Parents were also introduced to antecedents and consequences and how these can predict and/or shape behaviour. During this phase there was a variety of written exercises, discussion time, video vignette exercises, and reflection questions to help consolidate their learning and content. The fourth section, the in-home task, gave parents some questions to answer and reflect on at home until the next workshop. Parents were also reminded to observe their child's behaviour more objectively and to pay attention to the antecedents and consequences which may influence the problem behaviours they observe in their child. The final section of the first workshop was to debrief and have discussion time. At this point, parents were able to ask additional questions and clarification of any of the content covered in that workshop.

Workshop 2. The second workshop consisted of: (1) welcome and recap of workshop 1, (2) a review of the set home-based task, (3) a teaching phase, (4) final discussion and debrief and (5) post training knowledge quiz.

The opening welcome and recap of workshop 2 focused on re-establishing a supportive and nurturing learning environment and reflection on what was covered in the previous workshop. Confidentiality of what the parents were reporting was stressed once again. A review of the home-task was used to facilitate discussion about what had, and had not, worked since the last workshop. This allowed opportunity for feedback and descriptive praise from the researcher as parents shared their experiences. The third section, the teaching phase focused on: the function of behaviour, FBA processes and developing function-based procedures and behaviour support plan components. This workshop taught parents how to complete an ABC observation and identify what else was needed to manage problem behaviour such as antecedent change and prosocial replacement behaviours. During this phase, parents completed a variety of written exercises, had discussion time, video vignette exercises, reflection questions and role play activities. These activities promoted parents to look more critically at their home situations and to develop and design their own intervention plan based on the function-based information they had learned at the first workshop. The fourth section was a final discussion and debrief time. This allowed parents to ask any further questions or view any instructional vignettes again. The final section of the second workshop, the post training knowledge quiz, involved parents completing the same questionnaire from workshop 1 under the same conditions. Once parents had finish their knowledge quiz parents were reminded to remain consistent with their behaviour management and to generalise the skills they had learned over the two workshops to other home routines.

An outline of the order of the content covered and how delivery was structured in the two workshops is shown in Table 3.

Table 3

Outline of the content covered in the two Parent Empowering Programme (PEP) workshops.

Workshop 1	Workshop 2
Welcome and Introduction	Welcome and Recap of workshop material
Baseline Quiz	Oral feedback of home based task
Teaching Phase: definition of problem behaviour, identification and measurement of behaviour, antecedents and consequences and intervention strategies – attention, praise and encouragement, extinction and inclusive time-out.	Teaching Phase: functions of behaviour – attention, escape/avoid, tangible, identify function, positive behaviour support plans – competing pathways, prevention and replacement behaviour, and matching function to consequences and strategies. Putting it all together – identifying what strategies to use at home post intervention.
Home task	Final discussion and questions
Debrief and final discussion.	Post training quiz.

Parent Empowering Programme Workshop Resources.

Workshop content was supported by a variety of activities. These included written tasks, group discussion, reflection, role plays, video vignettes as stimulus for discussion exercises and home tasks. These learning exercises are similar but not identical to those used in the research of Loman, Strickland-Cohen, Horner and Borgmeier (2013), McNeill et al. (2002), Shayne and Miltenberger (2013) and Phillips (2014). Some of the learning activities were supported by original resources that were created specifically for PEP such as the Parent Handbook and instructional video vignettes.

The Parent Empowering Programme Parent Handbook. The content of the Parent Handbook was derived from the evidence-based and peer reviewed research of Fettig and Barton (2014), Fettig et al. (2015), Fox et al. (2002), McNeill et al. (2002), Mitchell et al. (2013), Reid et al. (1999) and Shayne and Miltenberger (2013). The templates and layout of the learning exercises in the handbook were influenced by the New Zealand based work of Phillips (2013).

On commencement of the first two workshops, the parents received a handbook which contained summaries of information being discussed, examples, goal setting and scales, written exercises and reflection questions. Parents were encouraged to complete the exercises within the handbook and make any other notes desired as the programme was delivered.

The handbook was divided into Workshop 1 and Workshop 2, and then further divided into sections of problem behaviour, antecedents, consequences and strategies, functions of behaviour, functional behaviour assessment and behaviour support plans. Parents took the handbook home between the two workshops and completed the home-based tasks and reflected on what they learned in the workshops. A full version of the parent handbook can be found in Appendix C.

Parent Empowering Programme Video Vignettes. Video vignettes have been found to be an effective way in which parents can observe and learn parenting skills (Fukkink, 2008). Vignettes were created in addition to the other resources because previous research suggested the use of vignette based activities, modelling and instruction within a group workshop significantly improved the probability of parent knowledge retention and maintenance (Fukkink, 2008). This is likely to be a result of social and rapid learning principles such as modelling and vicarious feedback (Fettig et al., 2015; Marcus et al., 2001; Shayne & Miltenberger, 2013). The creation and use of vignettes were essential to PEP to ensure parents with limited linguistic and literacy skills were given opportunity to learn through visual learning (Rahman, Iqbal, Roberts & Husain 2009).

Throughout the two workshops instructional video vignettes were shown to the parents. The vignettes displayed a variation of appropriate and ineffective interactions between parents and children. Situations shown in the vignettes were common daily home

routines such as breakfast time, changing for school, packing for school and bed time, as well inter-sibling interactions during play. The vignettes were used for instructional and interactive exercise purposes and each vignette complemented learning consolidation exercises such as group discussion, reflection questions and interactive written activities. Vignettes were also used as the stimulus for discussion. For example parents were asked "*what was the antecedent in this vignette?"* and *"What was the function of the child's behaviour in this scenario?"*

The vignettes were original and culturally appropriate with regard to New Zealand actors and accents and were filmed using actors/actresses from a volunteer New Zealand family. At present, parent training programmes in New Zealand use American or Australian based vignettes so as a point of difference, PEP contained only New Zealand culture vignettes.

Creation of Vignettes. The vignettes were initially created in a story board format by the researcher. There was consideration given to cinematography and effects that would best present the PEP material. Creating the vignettes in a storyboard format allowed the planning of specific behaviours that needed to be shown and allowed for tracking during filming. Storyboard creation took approximately 30 hours. Storyboarding aided an efficient use of actors and the researcher's time in shooting these and ensured continuity of actors clothing and settings. A registered Child and Family Psychologist reviewed the storyboard vignettes before filming. Filming was done out of sequence making maximum use of the settings that the camera and lights were set up for. Filming took approximately five hours with a total of 127 different shots recorded. These were then pieced together into 18 different vignettes using iMovie software in post-production by the researcher. The post production editing took approximately 20 hours. The vignettes were scripted, directed and shot by the researcher. The

resulting video vignettes ranged from 30 seconds to two minutes in length following post production.

Chapter 3b

EXPERIMENTAL PROCEDURES

The second part of this chapter describes the experimental procedures used to test the two research questions along with a descripton of the ethical approval processes, research design, participant recruitment, measures, procedures and data analysis.

Ethical Approval and Consent

Ethical approval was obtained from The University of Canterbury Human Ethics Committee. A copy of the letter of approval can be found in Appendix D

Informed consent involved a two-step process. First, after indicating interest in participating, parents were given, in person, an information sheet and consent form which outlined the aim, purpose and requirements of the study. Parents were asked to read the sheet carefully at home and were then asked to contact the researcher if they had questions either via telephone or email. The second step was for participants to read aloud a child-friendly information sheet outlining the project to their child. After this, if their child agreed to participate, the child was read a child friendly consent form and was asked to write or sign their name and their parent signed for written consent/assent.

The first step obtained consent for participation of the parent in the Parent Empowering Programme (PEP) intervention and the second step obtained consent from the child to be recorded when the parent took ABC observations of the child in their home for the functional assessment and implementation phases. Please refer to appendices E and F for a

copy of the *Parent Information Sheet* and *Parent Consent Form* and appendices G and H for a copy of the *Child Information Sheet* and *Child Consent Form.*

Study Design.

A single-case AB design and follow-up phase was planned across parent and child problem behaviours to assess if the content of the two workshops generalised to their home environment during the function-based intervention plan. A single case design was selected so that a time series of behavioural data could show if the function-based intervention plan was effective, or not in this setting, rather than statistical patterns of a group design (Baumeister et al., 2007). This design has been used in previous research in this field (Dunlap et al., 2006; Fettig et al., 2015; Fettig & Ostrosky, 2011; Galensky et al., 2001).

Recruitment and Participants.

For parents to be eligible to participate in the programme they had to meet the following criteria: (1) participants were to consistently reside with a child who engaged in consistent problem behaviour during a daily home routine time, (2) the child was typically developing, that is, without any formal psychological, physical or medical diagnosis that may be acting as the cause/function of the behaviour, and (3) the child in focus was between the ages of 3-10 years. The criteria for participation aligned with previous research by Fettig et al. (2015), Marcus et al. (2001) and Stokes and Luiselli (2008). Participants were recruited with the assistance of a teacher at a primary school in a town in New Zealand. The teacher advised parents in her class of the project via a newsletter. Interested parents were then invited to attend a 'Fish and Chip evening' with the research team (author and supervisors). At this evening, the researcher informed potential participants of the aim, purpose and procedures of the project. Potential participants were able to use this meeting to talk with the research team and ask any questions they had about the study and participant requirements. The potential participants were provided with the child and parent information sheets and

consent forms to take home (refer to Appendices E, F, G and H). Potential participants were asked to indicate their interest by contacting the researcher via phone or email with any additional questions they had about the project and if wanting to participate, to provide a day and time preference for an initial interview and preferred days and times for the two workshops.

The researcher then arranged meetings accordingly as parents indicated they wanted to participate. Two of the initial interviews took place at the local primary school and the other two interviews took place via a phone conversation. The teacher indicated that she also wanted to participate. This occurred because the researcher was based in a different part of the country and these parents were not available when the researcher was in town. The researcher had met all of the participants previously at the 'Fish and Chip' evening.

In the initial interview, details were gathered about the participant's family environment, the behaviour of concern and characteristics of these concerns. Parents provided written consent for themselves and their child's consent by giving the relevant forms to the researcher. At the end of the interview process, the researcher reviewed possible dates for the workshops and then after considering all the participants and their selected times/day, confirmed the date and time for the two workshops.

Six participants and three children were accepted on a first come, first entry basis. One participant was the classroom teacher who attended the workshops only. One participant gave consent and completed the interview process but did not attend the workshops so their data was withdrawn. A profile of the participants and children selected for the PEP programme is shown in Table 4 and Table 5 respectively below.

Table 4

Parent Participant Profile.

Participant Code	Gender	Ethnicity	Previous Parent Training	No. of Children in Family	Target Routine	Target Behaviour
A1	Female	NZ Pakeha	Standard Triple P	4	Before and After school	Physical/Verbal outburst
A2	Male	European	Incredible Years	1	After school and homework	Purposeful behaviour, remove avoidance
A3	Female	NZ Pakeha		3	Bedtime and Brushing teeth	Non-compliance
A4	Male	NZ Pakeha		3	Bedtime and Brushing teeth	Non-compliance
A5	Female	ND		ND	ND	ND

Note. ND =no data obtained, not all participants gave consent for information on their child to be collected.

Table 4 above indicates that three of the parents were New Zealand Pakeha and all had problematic daily home routines they wanted to focus on. Participant A1 and A2 had previously completed parenting programmes. These were completed more than 12 months prior to participating in PEP. Participant A3 and A4 were partners/married and focused on the same routine for one of their children's problem behaviour. The teacher who helped with recruitment asked to participate in the workshops so that she could learn new skills for behaviour management in her classroom. Parents were asked to nominate one child whom they were having difficulty with during a daily home routine. A profile of the children included in this study is shown in Table 5.

Table 5

Child Participant Profile

Participant Code	Gender	Child Age	Ethnicity
C1	Male	10	NZ Pakeha
C2	Male	7	NZ Pakeha
C3	Male	8	Chinese European

Table 5 shows that there were three children selected by their parents to be involved in the PEP study. Two of the children were New Zealand Pakeha and one was of Chinese/European descent. All children were males and were ten years old or younger.

Measures.

A number of measures were taken throughout this study. Data was collected through (1) the demographic FACTs interview (March et al., 2000) (Appendix I), (2) knowledge quiz (Appendix J), (3) in-home video recordings, (4) parent diary logs (Appendix K), and (5) a social validity questionnaire (Li, 2011) (Appendix L). Throughout the project, participant data was coded to ensure confidentiality of the participants and their families. All data was stored in a secured location and on servers with restricted access.

Semi-structured Initial Interview and Demographic FACTS form. The demographic FACTS form was an adaption of the *Functional Assessment Checklist of Teachers (FACTS)* form from March et al. (2000) and the *Parent Questionnaire* used by Li, (2011) and was a prebaseline measure. Information was collected orally from the parents by working through each question of the demographic FACTS form during a semi-structured initial interview. This interview gave the researcher insight to the parent's perspective of their child's problem behaviour regarding the topography, frequency, intensity and history of the presenting problem. Additionally, this interview gave details on successful and unsuccessful

strategies that the parents had already tried. Interviews lasted approximately 30 minutes. Please refer to Appendix I for a copy of the demographic FACTS form.

Knowledge Quiz. The 'knowledge quiz' was based on the Standard Triple P accreditation quiz (Sanders, 1999). This measure was administered as a written test which included a series of 27 questions with seven sub-questions making 34 questions in total. These were presented in 17 multiple-choice, five cloze, one case study and five short answer formats all which related to prosocial or problem behaviour, functional behaviour assessment, positive behaviour support strategies and plans. This measure was used to determine parent's entry level of knowledge prior to the workshops and whether or not the PEP content and delivery was sufficient to increase parent knowledge of functional assessment and function-based intervention plans post workshop 2. The validity of the content tested within this measure was supported by review from the researcher's supervisors and a registered Child and Family Psychologist prior to participant involvement.

The knowledge quiz was administered individually and in silence at the beginning of the first workshop and at the end of the second workshop. Participants were handed a hard copy of the 27 questions and were asked to write their names on the front page and to circle whether they were completing the test for the first or second time. There was no discussion during the assessment and if participants asked questions they were instructed to *"give their best attempt to the answers"* and that the content would be discussed later. There was no time limit given to complete the quiz. Please refer to Appendix J for a copy of the knowledge quiz.

In-home Video Recordings and Diary Log. Behaviour measures were taken from in-home video recordings and diary logs of each participant and their child during their identified problem home routine. Behaviour of both the parent and child were recorded. This

occurred over a period of approximately eight weeks over baseline (three recordings), intervention (three recordings) and follow-up (one recording). Diary logs were collected in addition to the video recordings. Parents were asked to video their selected problem home routine for a 10 minute sample of behaviours. The time limit of 10 minutes was given so that the behaviour of concern occured for a long enough period so that change (or no change) could be recorded but not too long so to be intrusive for the parents to feel uncomfortable being recorded. The diary entries provided written ABC format information of the behaviour of concern. This written record could also capture the antecedents that were not caught on camera, the duration/frequency of behaviours and any consequences that were delivered beyond the 10 minute recording. Additionally, the diary log was used in case the recording device did not work.

The in-home video recordings and diary logs allowed data collection of the dependent variables of parent and child behaviour. The data collected from the in-home recordings and diary log showed whether parents could generalise what they had learned in workshops and whether child problem behaviour decreased due to the function-based intervention programme used by the parents. The use of a video recording also allowed for direct observation of familial interactions without behaviour being influenced by researcher presence.

Social Validity Questionnaire. The Social Validity Questionnaire was an adapted document based on the *Satisfaction Survey* of Li, (2011). The social validity questionnaire was completed as a written survey made up of 15 questions which were answered by circling a rating on a 5-point Likert scale (1 = strongly agree, 2= agree, 3= neither agree nor disagree, 4= disagree, 5 = strongly disagree). The questionnaire was grouped into the following three sections, (1) content and delivery of the group programme, (2) the delivery and applicability

of the behaviour strategies and interventions and (3) overall satisfaction with the programme. Please refer to Appendix L for a copy of this survey.

Procedures.

This project followed a pre-baseline, baseline, teaching phase, intervention and follow-up phase over an eight week duration.

Pre-Baseline. The parent participants attended individual semi-structured interviews with the researcher where they answered questions from the demographic FACTS form (March et al., 2000; Li, 2011). Interviews were carried out at the local primary school for two participants. The other two parents were unavailable when these interviews took place so they completed their interview via a phone conversation. Interviews took approximately 30 minutes. Please see Appendices I, F and H, for a copy of the demographic FACTS form and parent and child consent forms respctively.

In-home Video Recording. At the end of the initial interview, parents were requested to undertake the following recordings. First, the in-home video recordings was to capture three 10 minute samples of the same daily home routine of concern during baseline, intervention and one 10 minute sample for follow-up phases. If the routine was completed before each of the 10 minute limits then the recording could be terminated. Second, the video recorder was to be set up in a manner that allowed the researcher to have a good view of the behaviour and routine in focus. Parents were informed that the recordings were not required to be on consecutive dates.

Parent Diary Log. Parents were requested to write a brief ABC observation in their diary log of the behaviour pattern observed after the routine of focus occurred. The description was to include identifying the antecedents, behaviour, consequences and an estimate of the frequency or duration of the behaviours and length of routine time. Parents

were given an exemplar of how to do this and a diary template to assist them in documenting this information. Please refer to Appendix K for a copy of the diary log book.

Baseline. There were two experimental baseline procedures; in-home video recording with parent diaries and a pre-training knowledge quiz.

In-home Video Recording and Parent Diaries. Post interview, parents were requested to complete three in-home video recordings and associated diary entries for their specified routine of concern in the two weeks leading up to the first workshop. This acted as the baseline phase. All baseline video recordings and diary logs were to be completed and returned to the researcher at the beginning of the first group workshop.

Knowledge Quiz The second baseline procedure was to obtain parent knowledge of FBA and function-based positive behaviour support strategies via a pre and pos test knowledge quiz (please see Appendix J). At the beginning of Workshop 1 parents were asked to complete the knowledge quiz. Once finished, parents wrote their name on the quiz and returned it to the researcher. This assessment took approximately 30 minutes to complete.

Teaching Phase. The teaching phase was over a period of two weeks. During this period, participants attended two, two-hour group workshops. The researcher delivered oral and visual presentations in both workshops, working through the content previously outlined in Table 3.

Workshop 1. To begin this workshop parents set goals about what they wanted to get out of participating in the PEP programme. Following this, participants learned what problem behaviour was, how to identify it and how to measure it. The topic of behaviour was discussed further in regard to different kinds of antecedents and consequences that can influence problem behaviour occurrence. The researcher then moved onto a variety of

different behaviour management and intervention strategies that can be used to manage and prevent problem behaviour. Throughout the workshop time was provided so that parents could share successes or difficulties that they have had in the past with each strategy and the researcher used this time as an opportunity to give feedback on how to make the strategies more effective. Each strategy had a written task within the handbook, an instructional vignette and a group activity to compliment it. The workshop concluded with a discussion of home tasks that were encouraged to be completed before attending the second workshop. Home tasks included attempting to identifying antecedents, behaviour and consequences and trying to apply some of the strategies learned. The home tasks required parents to think about what they had learned in the first workshop and promoted practice of some of these skills.

In the week that followed the first workshop the researcher sent one reminder email to all participants. The email thanked them for their attendance at workshop one and encouraged them to put into practice what had been discussed.

Workshop 2. The second workshop focused on the function of behaviour, functional behaviour assessment procedures and behaviour support plans. The second workshop began with a brief recap of the key points covered in the first workshop as well as a discussion of the home tasks. Following this, participants learned about the main functions of problem behaviour, that is, attention, escape/avoid and tangible. Once participants showed an understanding of the function of behaviour the researcher moved on to teach how to develop a function-based intervention plan. Lastly, participants worked with the researcher in creating an individualised function-based behaviour support plan to use with their child during their identified problem routine. Throughout the workshop discussion, role play and vignette exercises were used. At the end of the workshop participants completed their final knowledge quiz and were verbally instructed to complete their intervention series of in-home video recordings and diary entries of three, 10 minutes entries. At the end of workshop 2, the

participants were thanked for their commitment and participation in the programme. The parents were then given a pre-paid postage parcel already addressed to the research team so they only had to complete the recordings and diary logs and then post to the researcher. They were also given a social validity questionnaire (Appendix L) to anonymously complete and were requested to include this in the postage parcel as well.

Intervention Phase. After attending the two workshops participants were requested to complete three more in-home video recordings and diary logs of the same routine across the fortnight that followed the second workshop. In the week that followed the second workshop the researcher sent one reminder email to all participants which thanked them for their attendance and commitment to the programme and encouraged them to put into practice what they had learned in the workshops and remember to record via the video and dairy logs their intervention plan.

Follow-Up. The follow-up phase was planned to occur approximately one month after the final in-home video and diary log recordings. This final phase was planned to include one final 10 minute video recording, one diary log and one final group follow-up meeting. Due to restrictions of being in different parts of the country and time constraints no follow-up data was obtained but a group follow-up meeting did occur post thesis submission.

Data Analysis

The following analysis of the data occurred.

Semi-structured Initial Interview and Demographic FACTS form. This measure obtained demographic information about the participants, details about their family situation and the behavioural concerns they had. The data from these interviews is presented in Tables 4 and 5.

Knowledge Quiz. This measure was analysed by marking correct and incorrect responses. The responses were collated, tabled and analysed to see if the training workshops increased (or not) the participant's knowledge of functional behaviour assessment and function-based intervention strategies. A paired t-test was applied to establish whether change between total pre- and post-test scores for each participant was significant.

Home Video Recordings, Diary Logs and Anecdotal Evidence. Parent data was analysed using qualitative thematic analysis. Theoretical thematic analysis was used to identify themes, concepts and explanatory factors across the in-home videos, diary logs and anecdotal evidence (Braun & Clarke, 2006). Themes that emerged were then coded into the following categories (1) increase in parent appropriate behaviour, (2) decrease in child problem behaviour, (3) increase in child prosocial behaviour, and (4) change in parent attitudes or perceptions. These themes were then considered regarding their prevalence across data sources.

Social Validity Questionnaire. This measure was analysed by recording each score into a table. Data was then collated by finding the mean of all participants' scores on each item.

Reliability

First, to ensure that the data collected from the knowledge quiz was scored reliably, 50% of quizzes were randomly selected to be marked by an independent scorer. This gave a measure of inter-rater reliability. This ratio is deemed adequate to ensure reliability as it is in alignment with previous research methods (Fettig et al., 2015). For both of these measures the scorer was trained by the author on how to complete both tasks. The independent marker was a Master's student at the University of Canterbury. Second, to ensure reliability of the data collected from the social validity measure, the questionnaire was completed

anonymously and collected by the researcher's supervisor. Participants were told of this process and it was hoped that this procedure ensured anonymity and minimised answer bias.

Chapter 4

RESULTS

In this chapter the data analysis and results are presented. Overall group findings are presented first and are then followed by individual results. The interpretation and implications of these results are discussed further in Chapter 5.

Data was collected from demographic FACTS interviews, pre and post knowledge quizzes, in-home video recording and diary log entries, anecdotal researcher notes and a social validity questionnaire. Not all participants consented to in-home data collection and some participants also failed to return in-home video and diary data. The data obtained across baseline, teaching, intervention and follow-up phases from each participant is shown in Table 6.

Overall Group Findings.

First, overall group findings show that all participants increased their scores on the knowledge quiz from pre to post-test. Second, anecdotally all the parents reported that after completing the PEP workshops they noticed a positive difference in their own and their child/ren's behaviour and in their ability to identify the function of their child's behaviour and respond with some positive behaviour support strategies. Evidence provided by the in-home dairy log and one video sample further suggests that anecdotal reports were consistent with what was occurring in the home environment. Lastly, overall group findings from the social validity questionnaire indicate that PEP was socially valid and acceptable.

Table 6

Data Collected from each Participant across Baseline, Intervention, Maintenance and Follow-up phases.

	Participant Data Collected			
Participant	Baseline	Teaching Phase	Intervention	Follow-up
A1	Demo-graphic FACTS interview 3/3 Baseline Diary 0/3 Baseline In-home Video Pre Knowledge Quiz	Anecdotal Researcher notes Post Knowledge Quiz	2/3 Intervention Diary 0/3 In-home Video Social Validity	-
A2	Demo-graphic FACTS interview No consent for diary No consent for In-home video Pre Knowledge Quiz	Anecdotal Researcher notes Post Knowledge Quiz	No consent for Diary No consent for In-home Video No Social Validity Returned	-
A3	Demo-graphic FACTS interview 0/3 Baseline Diary 0/3 Baseline In-home Video Pre Knowledge Quiz	Anecdotal Researcher notes Post Knowledge Quiz	0/3 Intervention Diary 0/3 In-home Video Social Validity	-
A4	Demo-graphic FACTS interview 2/3 Baseline Diary 0/3 Baseline In-home Video Pre Knowledge Quiz	Anecdotal Researcher notes Post Knowledge Quiz	1/3 Intervention Diary 1/3 In-home Video Social Validity	-
A5	Pre Knowledge Quiz	Post Knowledge Quiz	Social Validity	-

Parent Knowledge Quiz.

Participants completed the knowledge quiz twice during the study. In the pre-test, scores ranged from 4.50 to 20 out of a total score of 34. Post workshops all the participants increased their knowledge on FBA and behavioural strategies as shown by the increase in their scores. Participants 2 and 3 increased their correct scores by 20 and 18 respectively and the three remaining participants by 12 points from pre to post test. A visual comparison of each of the participants raw scores from baseline to intervention are illustrated in Figure 1. This figure also shows that participant A3 made the greatest increase in scores followed by participants A2, A4, A1, and A5.

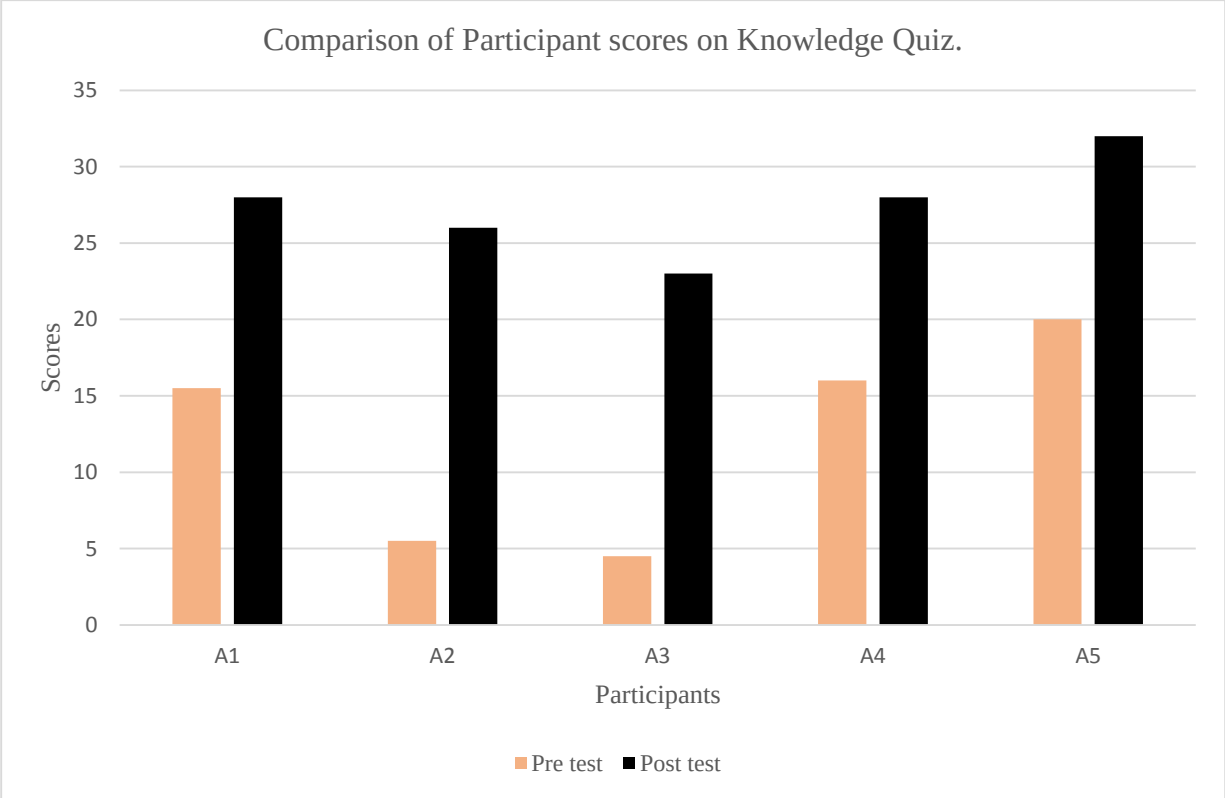

Figure 1: *Participant's raw scores of Knowledge Quiz for Pre and Post-tests.*

The descriptive statistics computed from the pre to post workshop scores of the group are shown in Table 7. These findings indicate that the average score for participants increased from baseline (*M*=12.3, *SD*=6.9) to intervention (*M*=27.4, *SD*=3.3).

Table 7
Group Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test Group scores	5	4.5	20.0	12.3	6.90
Post-test Group scores	5	23.0	32.0	27.4	3.29

Table 8 shows a paired-samples t-test that was conducted to compare the knowledge quiz scores from pre to post workshops. The analysis of Table 8 shows there was a significant increase in parent scores from baseline (*M*=13.2, *SD*=6.9*)* to intervention phases (*M*=27.4, *SD*=3.3*) t*(4) = (8.269), *p* = .001.

Table 8
Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre	12.3000	5	3.28634	1.46969
	Post	27.4000	5	6.89746	3.08464

Knowledge Quiz Reliability Agreement.

Fifty percent of the two parent Knowledge Quizzes were randomly selected and scored by an independent scorer. The formula below as suggested by Landis and Koch (1977) was used to determine the inter-scorer agreement. A score of 100 was obtained indicating there was 100% agreement in the scoring between the two markers.

$$\frac{\text{Agreements}}{\text{Agreements + Disagreements}} \text{ X } \frac{100}{1}$$

Parent Implementation and Generalisability of the Workshop Material.

Three participants A1, A3 and A4 were requested to take in-home video recordings alongside written diary entries at baseline, maintenance and at follow-up phases. Participant A2 and A5 did not give consent to have in-home video and diary log data collected. Because of the lack of quantitative data, parent and child baseline and intervention data was analysed qualitatively. This was achieved by thematic analysis of the information provided in the initial demographic FACTS interview, the home video recordings, the information recorded in the parent diary entries and the researcher's anecdotal notes provided during discussions at the two PEP workshops.

Participant A1. A1 returned data for three baseline points, two maintenance points and no follow up data. This participant completed the initial demographic FACTS interview, five diary entries and researcher anecdotal notes. No video recordings were completed.

Baseline. During the initial demographic FACTS interview, A1 reported she was having trouble with persistent noncompliance and verbal and physical outbursts from her child. She reported these three behaviours occurred most often on school days both in the morning before school and during the bedtime routine. Consequences she had previously tried to manage this problem behaviour were the removal of the child's tablet or computer time, reduced free time and additional chores.

The first of three baseline recordings in this parent's diary documented a before school routine. The antecedent to her child's noncompliance was asking the child to get changed for school. In response, the child ignored her. A1 then proceeded to yell at the child on three separate occasions and in response the child ignored her requests. The child eventually completed her request however the whole family was late to school and the child missed 'free time' before school.

The second baseline recording documented a bedtime routine. A1 reported that the antecedent on this occasion was the instruction to go to bed. The child's response was four verbal outbursts (swearing and telling the mother to f*** off) and then the child getting out of bed three times to get a drink or go to the toilet. The consequence was that the parent told the child that he would go to bed 15 minutes earlier the next night if he continued to behave in this way. The child was then compliant and settled to bed.

The third diary baseline recording described another morning routine. A1 reported that the antecedent was the child being asked to complete his morning chores. In response, the child yelled back swearing at A1 to 'p*** off', threw items out of the bedroom such as clothes, toys and a pillow, and then verbally abused his parent. The parent reported that she continued to do her own chores and ignored him and told the child he still had to complete the chore the next day.

Teaching Phase. During workshop attendance, A1 anecdotally shared with the researcher that she had been calmer when giving instructions and consequences with her child. She verbally reported that she "*did not react so much, just breathed and remained calm and it worke*d!" A1 also reported she had noticed that her child was also *"much quieter and easier to manage*." She provided examples of routines in the morning and bedtime when she had used planned ignoring and sit and wait techniques.

Intervention. The first of the two intervention recording in A1's diary documented an evening routine. The antecedent to her child's noncompliance was A1 asking her child to wash his dishes. A1 reported that he responded by yelling that he was not going to do them. A1 stated that she thought the function of the behaviour was attention so used 'planned ignoring' and withdrew attention from the child by involving herself with the other tasks. The

routine finished with the child washing his dishes and then taking himself to bed with no problems.

The second intervention recording was a bedtime routine. The parent gave the child a 10 minute transition time (a warning that bedtime was close). The child complied immediately and went to bed but then argued with siblings by yelling from his bedroom. A1 reported she warned him to stop or he will go to the hallway (where sit and wait occurs). His yelling escalated to all the siblings so A1 followed through with sit and wait. After time in sit and wait was completed the child went back to his bed and settled down and went to sleep.

Participant A1 Summary. A1 reported during baseline that there was noncompliance, avoidance, and physical and verbal outbursts from the child. There was a variable pattern of consequences with no behaviours matched to their function and no antecedent manipulation by the parent. At intervention there was a shift in the A1's response to her child's problematic behaviour in that she reported reduced stress and not reacting to the behaviour but being responsive by giving clear warnings and following through with stated consequences. The parent was still experiencing some noncompliance from her child but she attempted to use planned ignoring and sit and wait strategies and reported the problem behaviours were not as severe. The duration of the individual behaviours was not recorded. When the diary log entry was matched with the anecdotal data it appears that during the teaching phase the parent was still experiencing noncompliance from her child but she had increased her use of planned ignoring, sit and wait and identifying the behaviour function before following through with a consequence. This parent reported within two weeks her response to her child had changed and that the child was now engaging in prosocial behaviour during the identified routines. She reported that that she felt much happier and calmer in her interactions with him (and the other children as well). Anecdotal evidence suggests that during the intervention phase the problem behaviour she was experiencing had

lessen in severity and she was able to use positive behaviour support strategies effectively to reduce the problem behaviour and increase her child's prosocial behaviour. **Participant A2.** Participant two did not give consent for in-home data to be collected or reported on.

Participant A3. This participant completed the initial demographic FACTS interview and the researcher took anecdotal notes during the teaching phase, no diary entries and no video recordings were completed by A3.

Baseline. During the initial demographic FACTS interview, A3 reported she was having difficulty with persistent noncompliance, avoidance and verbal outbursts from her child. She reported that these behaviours occurred daily at bedtime and brushing teeth routines. Consequences she had previously tried to manage this problem behaviour were the removal of the child's tablet and time-out. These were unsuccessful as the behaviours still frequently occurred.

Teaching Phase. During the teaching phase A3 anecdotally shared with the group that she felt that the researcher had been "*sitting on her shoulder"* all week and she was frequently recalling information and strategies that had been discussed in the first workshop. She verbally reported that since attending the first workshop she understood that her behaviour had a large influence on her child's behaviour. A3 also reported that she was "*letting the small things go and noticing when he was good and praising him for being good*" and was enjoying time with her child much more. She provided examples of bedtime routines where she had manipulated antecedents and stated that this had been successful in preventing problem behaviour. One of these examples was her transition warning for bedtime. She reported that she gave her child a 10 minute notification before bedtime and ensured his bed was warm thus he went off to bed with no problems.

Intervention. No intervention data was returned by this participant.

Participant A3 Result Summary. During baseline, A3's child engaged in noncompliance, avoidance and verbal outbursts at bedtime and brushing teeth routines. The parent applied consequences which were not effective and nor did they match the function of the behaviour. There was no evidence of antecedent manipulation. During the teaching phase A3 reported she was frequently thinking and referring back to what she had learned in the PEP workshops. She reported she used giving positive attention by using phrases such as "*have a good day"* instead of "*don't get into trouble today"* and used positive behaviour support strategies at throughout her day and antecedent manipulation at bedtime. She described using transition warnings and making sure things were prepared for the child in advance. The duration of the behaviour incidents were not recorded.

Participant A4. A4 returned data for two baseline points and one intervention point. This participant completed the initial demographic FACTS interview, three diary entries, provided anecdotal evidence and one video recording.

Baseline. During the initial demographic FACTS interview A4 reported he was concerned with consistent noncompliance, running away, hiding and verbal outbursts from his child during bedtime and brushing teeth routines. A4 reported that these behaviours occurred daily. Consequences he has previously tried to manage these behaviours were exclusive time-out and the removal of his tablet but he noted these were not always effective. There was no evidence of antecedent manipulation.

The first baseline recording in the parent's diary log documented a morning routine. The antecedent to the child's noncompliance was asking the child to eat their breakfast. In response, the child initially complied but then stopped and refused to eat anymore. The parent then proceeded to ask the child to continue eating and the child ran from the table to his room and slammed the door. A4 reported going to the child's room and said that the child could eat

a reduced amount of breakfast in return of him coming back to the breakfast table. The child complied and ate a smaller portion of his breakfast.

The second baseline recording in the parent diary described a bedtime routine. A4 was not able to identify the antecedent. The behaviours reported were yelling at the parents and a younger sibling and then hitting the sibling. The consequence was the child was placed in time-out and told that a better way to fix problems was to come to mum or dad and talk instead of yelling and hitting.

Teaching Phase. During the teaching phase, A4 anecdotally discussed with the researcher that the PEP workshop information had allowed him to see his child's behaviour "*differently*" and was beginning to understand the function of his child's behaviour. He reported that the week after the first workshop saw a "*change in me and how I interact with the kids.*"

Intervention. One diary recording and one in-home video recording was taken during the intervention phase. This showed an after school routine of completing homework. The parent gave a "*calm and clear instruction*" for the child to do his homework and then A4 cleared a space for the child and helped him prepare his reading book. It was shown in the in-home video recording that the instruction the parent described as calm and clear was "*it is time to finish your reading now, your books are ready to go on the table for you.*" The diary and in-home video recording show the child complied promptly, and as a consequence immediate praise was given to the child '*good job'* and then further descriptive praise was provided with *"well done for coming to finish your reading straight away*." A4 then carried on with their own task and the child remained at the table doing his homework. The video indicated this took approximately four minutes.

Participant A4 Result Summary. During baseline A4 was having difficulty with noncompliance, running away, hiding and verbal outbursts from his child. There was a pattern of consistent consequences but little evidence that these matched the function of the problem behaviour and no antecedent manipulation. During the teaching phase there was a change in A4's interactions with his child with more of a focus on antecedent control and descriptive praise. This was carried on into intervention and A4 reported success in reducing problem behaviour using these strategies.

Participant A5. Participant two did not give consent for in-home data to be collected or reported on.

Results of Social Validity

Four of five participants returned the social validity questionnaire. Scores on the questionnaire range from 1 to 5 (1 = strongly agree, 2 = agree, 3 = neither agree nor disagree 4 = disagree and 5 = strongly disagree). Group mean scores for each item of the questionnaire are reported in Table 9.

The results of the social validity questionnaire show that the content, delivery and layout of the group workshops were socially acceptable (M = 1.0-1.3) to all participants. Additionally, the use of teaching functional behaviour assessment and function-based intervention strategies and using New Zealand vignettes and parent handbook were socially acceptable (M=1.5-1.8). The overall satisfaction mean score indicates that this small group of participants found the workshop programme socially valid (M=1.0-2.5). Only item 14, *Overall training time was appropriate* did not score in the 'strongly agree' category. The two participants who scored this item in the 'agree' category noted that they scored this item in such a way as a result of wanting a third workshop to review what they had learned.

Table 9

Social Validity Questionnaire Mean Scores from Participants.

Social Validity Questionnaire	Average Group Score
Group Workshop	
1. Components of the workshop were well organised	1.3
2. The examples and video resources were easy to relate to	1.3
3. The mixture of written, visual and physical learning activities was beneficial for my learning	1.3
4. The information provided was thorough	1.3
5. The instructor showed knowledge and professionalism when providing training	1.0
6. The workshop was interactive and enjoyable	1.0
7. The group setting encouraged relationships between parents	1.0
8. The group setting fostered a support network between parents	1.3
Functional Behaviour Assessment	
9. The teaching of Functional Behaviour Assessment strategies was understandable and helpful	1.5
10. Functional Behaviour Assessment strategies were relatable to my family situation	1.8
11. I have confidence in my ability to perform Functional Behaviour assessments	1.5
New Zealand Resources	
12. The materials used within the PEP workshops were clearly New Zealand resources.	1.5
13. The New Zealand based materials influenced my acceptance of programme content.	1.8
Overall Satisfaction	
14. Overall training time was appropriate	2.5
15. I would use the skills learned again with my child if necessary	1.0
16. The information gained through this training helped me to better understand my child	1.3
17. I would recommend learning about Functional behaviour assessment to other parents	1.0
18. I am satisfied with the training programme	1.0

Anecdotal written comments made at the end of the social validity questionnaire indicated that participants believed that the PEP workshops made a significant difference in their homes with regard to their behaviour and their child's, "*this has made a huge change in myself and my children," "your teaching has had a profound effect in our house,"* and *"thank you for helping us understand why we had problems before."*

Summary

Results of this study suggest that all participants increased their knowledge of functional behaviour assessment and positive behaviour support strategies taught in the PEP workshops from pre to post workshops as shown by their increase in knowledge quiz scores. Individual results show that parents were able to implement their knowledge in their home environment with their children. A1 reported a decrease in problem behaviour severity and an increase in her own prosocial behaviours which made her interactions with her children more calm and enjoyable. A3 reported that she often reflected on her PEP learning and had increased her use of antecedent manipulation, positive attention and descriptive praise with her child. A4 reported that he was beginning to understand the function of his child's behaviour and was able to use antecedent manipulation and descriptive praise to reduce problem behaviour occurrence. All participants who returned social validity data reported satisfaction in the programme and found that PEP had made a difference in their lives.

Chapter 5

DISCUSSION

The present study aimed to deliver a brief group parent training programme which taught parents to perform a basic functional behaviour assessment and develop a function-based intervention plan in their homes with their child who was engaged in persistent problem behaviour at a family routine time. This study set out to answer two research questions. One, can parental knowledge of functional behaviour assessment and function based intervention strategies increase after two, two hour group workshops and two, can parents generalise this knowledge to their home environment and conduct an intervention plan based on their group workshop knowledge.

In this chapter, interpretation of results and findings will be presented. This will be followed by a discussion on the delivery of the Parent Empowering Programme (PEP), data collection methods, cultural considerations and the limitations of this small study. To conclude this chapter, the implications of this research and future direction will be presented.

Group Findings.

The three participants who took in-home data all showed that parents, can with very little training, implement a small intervention plan in their family home This finding is in alignment with the previous research of Duda et al. (2008), Dunlap et al. (2006), Fettig et al. (2015), Shayne and Miltenberger (2013) which also demonstrated parent's ability to implement function-based intervention plans after short training times.

From the results of the knowledge quiz, the findings show that all parents increased their knowledge of functional behaviour assessment and positive behaviour support strategies. These findings suggest that the delivery of the PEP group workshops provided sufficient learning opportunities for parents in an appropriate amount of training time. This finding is in alignment with the previous research of Duda et al. (2008), Dunlap et al. (2006),

Fettig et al. (2015), Shayne and Miltenberger (2013) who also showed that parents could increase their knowledge of function-based interventions after a brief parent training programme. The results of the knowledge quiz also suggests that the group setting of the workshop facilitated fast learning and consolidation of information as suggested in the study of Shayne and Miltenberger (2013). In addition, the increase in scores may have been the result of the PEP content being specific and focused just on the function based assessment and intervention processes and pertinent to their own family circumstance. This finding is in alignment with Kaminski, Valle, Filene, and Boyle (2008) who found that programmes which cover a large breath of topics and offer additional training can be seen as overwhelming and burdening to parents and create small effect on the family. The ability of parents to produce significant change in their scores also provides additional evidence that training parents in groups is cost and time effective (Christensen et al., 1980; Dretzke et al., 2005).

The social validity questionnaire results show that the four participants who returned their questionniare found the PEP workshops to be well organised, interactive with a mixture of learning resources and opportunities, encouraging of relationships and had content which the parents could relate to. The parents also reported they thought the programme helped them to better understand their child and that they could use the skills they had learned with their children. They all indicated they would recommend the programme to other parents. The social validity results may explain why parents were able to increase their knowledge quiz score. Foster and Mash (1999) found that social validity and satisfaction scores are a large indicator of how much effort, practice and value parents place on a training programme. Furthermore, Strain et al. (2012) suggest that parents are more likely to have significant treatment gains if they believe the parent programme aligns with their values and their family's needs. Thus, it may be fair to suggest that the parent's acceptance of the PEP may have influenced their increase in knowledge quiz scores.

Individual Findings.

Three parents collected in-home data throughout the study. Results show that these parents were able to successfully implement the strategies they learned in the workshops to their home environment. These participants reported that they noticed significant changes in their family environment as they continued to implement the PEP strategies.

At baseline A1 was a mother who was experiencing noncompliance, avoidance, and physical and verbal outbursts from her child and was unable to use consistent consequences and antecedent manipulations which matched the function of her child's behaviour. In comparison, during the teaching phase she was beginning to follow through with consequences that matched to the function of her child's behaviour. At intervention, she had increased her use of positive behaviour support strategies such as planned ignoring and also increased her ability to remain calm and enjoy her interactions with her child. She still experienced noncompliance and physical and verbal outbursts from her child but at a lesser severity. She also noticed a shift in her child's demeanour which matched her increase in calmness.

The parallel changes reported by A1 and her child are not coincidental as they can be explained by Reid and Patterson's (1989) coercion theory. Reid and Patterson (1989) found that modelling and reinforcement are causal mechanisms for behaviour change and development. For example, Al modelled a calm state and as a result her child then calmed down. She was then able to provide descriptive praise to her child thus changing her previous coervice interactions to more positive ones by reinforcing the behaviour she wanted to see. She also learned to use the sit and wait strategy correctly and then to show her child the expected behaviour she wanted. Sit and wait is a form of inclusive time-out and Kaminski et al. (2008) suggests that parent programmes which include training in time-out principles are consistently reported to produce significant and effective change in child externalising

behaviours. The finding that the problem behaviour was still presenting in the child is not unusual as Kaminski et al. (2008) showed that parent programmes that focus on parenting skills, knowledge and self-efficacy, like PEP, usually have a larger effect on the parent's behaviours in the short term which then translates into a large effect on the child's behaviour in the long term. Thus the finding of a decrease in severity but not complete absence of the problem behaviour can be explained. A1's ability to implement the prevention strategies and consequence strategies she learned during the PEP workshops is in alignment with the previous research of Fettig and Ostrosky (2011) and Vaugh et al. (2002) which showed parents are very capable of applying prevention and consequence strategies in the home setting.

For participant A3, the strategy of 'catch them when there are good' was invaluable and was a strategy that frequently came to her mind and which she used post workshops with her three children. This simple strategy changed the way she communicated with her child and as a result changed the way her child responded to her. This again can be explained by Patterson and colleagues (1989) coercion theory. A3 modelling appropriate interactions and focusing on positive behaviour instead of problem behaviour was the causal mechanism for behaviour change with her child. This finding is also in alignment with the study of Owen et al. (2012) who found that increased praise and positive attention resulted in increased levels of compliance. A3 reported that PEP changed her life and has had a large impact on her family.

At the beginning of the study, A4 was a father whose child was noncompliant, ran away, hid and exchanged verbal outbursts with his father. During the teaching phase and intervention A4 reported he changed the way he interacted with his child by first, recognising the function of behaviour, second focusing on antecedent control and third, by giving descriptive praise contingent on appropriate behaviour. A4 reported that the PEP

programme had allowed him to see his son's behaviour from a different perspective and that this had made a significant difference to their family home, making the home more calm and a generally more positive environment to be in. For this parent, the recognition of the function of behaviour and matching consequences to the function was important learning. The participant had already demonstrated he could be consistent and follow through with instructions but the turning point for him was the use of behaviour function to dictate his consequences. A4's ability to identify function and use this information to direct his own behaviour after completing PEP workshops supports the findings of Duda et al. (2008), Fettig et al., (2015), Frea and Hepburn (1999) and Galensky et al. (2001) who showed that parents could learn the function of behaviour and use this information for future behaviour intervention. Owen et al. (2012) suggest that positive parent responses have a greater overall impact on the rates of child compliance and consequently on the parent-child relationship.

In summary, the individual participant findings support previous research in that parents can be taught to use functional behaviour assessment skills and function-based positive behaviour support strategies in their own home with their children. The difference with this current study is that this group of parents did this in two, three hour workshops. Diary logs and anecdotal reports indicate this was successful for them with reduced problem behaviour and increased prosocial behaviours occurring. These findings add to the literature that supports parent can be trained in a short amount of time in group settings.

Delivery of the Parent Empowering Programme (PEP).

During the two workshops were extended on both occasions by one hour. This was a result of the group setting of the programme. There were also additional implications of the group setting such as social support and the forming of relationships. There was also a change in order of some aspects of the presentation in response to parent discussion and thus there

was also exclusion of some the planned activities as a result of this. Each of these features are discussed below.

Programme Duration. The rationale behind the duration of PEP was based on previous research, however, in reality the duration of both workshops was extended from two, two hour sessions to two, three hour sessions. Previous research suggests that parents can be taught functional behaviour assessment skills and positive behaviour strategies in a group and in a short period of training time (Dunlap et al., 2006; Shayne & Miltenberger, 2013), thus the decision to the timing of the two, two hour workshops. In addition, the researcher was also mindful of engaged parent participation /recruitment thus, wanted to develop a programme where the time commitment was not burdensome for families to attend. Retention is an issue with parenting programmes as both the Triple P and Incredible Years programmes both report this issue (Danoff, Kemper & Sherry, 1994; Sanders, Markie-Dadds, Tully & Bor, 2000).

The intended two hour period was extended to three hours in both workshops as a result of the open and talkative dynamic of the small group of parents. The discussions amongst the group flowed freely and in an attempt to facilitate learning, relationship building and support amongst the parents, the researcher did not stop constructive discussion and only used redirection when discussions became redundant or off task. As the participants brought up personal experiences, the researcher used these as teaching opportunities and where possible drew on these experiences to explain how to use the strategies being taught. These group discussions were also used as opportunities for specific instruction, feedback and advice for each participant as they shared their experiences. The allowance of group discussions to continue was the primary reason for both workshops exceeding the planned time of two hours to three hours.

On reflection, in the present study participants may have benefitted from a booster session. The open group discussions sometimes resulted in other learning materials being rushed in order to get through the programme. This reflection was indicated by two participants who wrote in their social validity questionnaire that they felt at times the material was rushed and would have liked a third workshop to recap their learning. These participants acknowledged that this group of parents were open and talkative and they understood the content had to be taught quickly in some sections as a result of this group dynamic. It may have been beneficial to offer an additional workshop or 'booster session' after the second workshop if they wanted to recap or discuss certain aspects of the programme further. The study of Marcus et al. (2001) offered booster sessions to participants that were having difficultly implementing appropriate parent strategies to problem behaviour or to participants whose children's problem behaviour continued to increase. The option of a booster session may have been beneficial for the parents in this study. Although two participants indicated they would have liked a third workshop their quiz results and anecdotal comments suggest that the two, three hour workshops were sufficient in increasing their knowledge and implementation of function-based intervention and positive behaviour support plans. An example of a comment was "*this course has changed me and my family's life."*

The planned total and actual total training time of 4-6 hours place PEP training at a lower parent time commitment than other well established parent behaviour management training programmes such as Triple P and the Incredible Years (IY) programme. The standard Triple P programme requires parents to attend 8-10, sessions (de Graaf, Speetjens, Smit, de Wolff & Tavecchio, 2008) while the IY programmes take 12-14, two hour sessions (Webster-Stratton, Jamila Reid & Stoolmiller, 2008). Comparatively, PEP required only a two, two hour commitment and taught similar material as Standard Triple P and IY programmes. A notable difference between Triple P, IY and PEP was that the PEP programme taught and

focused on behaviour function. With PEP, parents were taught to identify and recognise the function of behaviour and then were taught how to develop a small intervention programme based on the function of the behaviour. Both of these aspects are not taught in Standard Triple P or the IY programmes. Interestingly one of the participants had taken part in the Standard Triple P programme in the previous year but did not complete the course as they found the course was "*a waste of time, it took up so much time and had too many rules.*" This participant reported that Triple P "*taught similar strategies but didn't teach me the meaning of his (her child) behaviour like this (PEP) has."*

Group Setting. The use of a group setting for PEP parent training created an open and supportive environment for parents. A group setting was chosen because previous research has shown that additional therapeutic benefits are gained for parents and the findings in this study suggest that this did happen.

The two workshops were designed to be open and supportive environments so that parents would feel safe to discuss their parenting skills and child problem behaviours. From the initial 'fish and chip evening', the researcher attempted to create this environment through a number of different strategies. For example, being prepared and knowledgeable of the content being presented, presenting confidently, sitting at the same level with the parents, embedding herself into their conversations, actively listening and replying in a non-confrontational manner, encouraging and paraphrasing parent comments, offering refreshments and having personal contact with participants through email reminders in between the two workshops. Evidence that the researcher was successful in creating this environment was evident through the parents' willingness to share personal details of their family environment and experiences right from the beginning of the initial interview to the completion of the second workshop. Furthermore, parents made anecdotal comments on their social validity questionnaires that they found this group to be sociable and talkative. Parents

were so open and talkative that their discussions were what lead the workshops to be extended to three hours with the researcher closing the session rather than the parents wanting to leave.

It was apparent that these parents experienced increased social support through completing PEP in a group setting. Parents acknowledged at the start of the programme that they did not know each other. Throughout the workshop parents were encourage to discuss and reflect with one another on their experiences in relation to what was being taught. As result, by the end of the two workshops it was evident had all parents had formed relationships with one another. These relationships were apparent through the social conversations they were having, the willingness to share information and resources and even sharing home baking recipes with one another. There was also conversations on making 'play dates' with their children. Although there was no measure taken parents were asked in their social validity questionnaire whether the group setting facilitated relationships between parents and a support network. To this all participants strongly agreed, suggesting that all participants felt they benefited socially from the group setting. These findings are in alignment with previous research where parents experienced additional therapeutic gains when they are trained in groups (Pisterman et al., 1992; Minjarez et al., 2012).

Changes in Order and Planned Activities. The PEP workshop material was adapted to best match the parent group. This adaption was based on the information gained from the initial interview where the parent was asked what they had tried and what had worked or not worked for them. This meant that the planned order of content was changed at times and some of the activities for each section were excluded.

The order of content was originally planned to move through the sections in a manner that each section built on the one previous. This format was still basically followed but the teaching points within each section were sometimes presented in a different order than what

was planned or laid out in the Parent Handbook. This was because as the parents discussed their personal experiences and past behaviour management successes and failures, these examples were used to explain workshop material and were used as teaching points. Thus, as a result some of the teaching points shifted order. An example of this was the presentation of praise and encouragement before 'how to give positive attention' in the first workshop. This occurred because a parent brought up a behavioural event that happened the previous week. Instead of moving forward in the planned sequence of teaching points, the researcher adapted the workshop content order to match the concerns and difficulties this parent was describing. During these times, other parents showed empathy and understanding to the parent providing child/home conflict examples. In this manner, the parents built rapport and created a very supportive learning environment for themselves. At no time did another parent discount or belittle another parent's experiences or comments.

Throughout the workshops it was planned to show instructional video vignettes multiple times, use role plays, group discussions, and complete written exercises and interactive vignette activities alongside the teaching content. In one section, it was planned to show vignettes twice, once without interruption and a second time to identify important teaching points but this did not happen as it was obvious that parents understood the purpose of the vignettes after the first viewing. There were also no role plays nor were parents asked to complete all the written tasks. This was because parents were clearly benefiting and learning from group discussions so these were used in place of the planned role plays and written tasks. The written tasks were encouraged to be completed at home. The decisions to exclude and change some of the materials and activities were in response to the qualities of this specific participant group and in consultation with the researcher and her supervisor.

Difficulties with Data Collection.

The planned procedure of this study was to gather data on intervention effectiveness and follow-up by obtaining seven in-home video recordings with supplementary parent diary logs of the same routine from each participant. Participants were asked to return three video recordings at baseline, intervention and one final recording at the follow-up phase. However, this did not occur. The difficulties experienced in collecting this data is explained below.

Multiple Data Sources. Parents were asked to complete a total of seven in-home video recordings with complementary self-reported behaviour diary logs. In practice, this was not achieved as no participant was able to return all the data that was requested during these phases.

In-home video recordings with self-reported behaviour diary logs were used to collect data on the independent variables of parent appropriate behaviour, child problem behaviour, and child prosocial behaviour. The rationale of choosing the combination of diary log and video was to increase the reliability of the behavioural data so that not all data was not just from parent self-report. It has been suggested by Seiffge-Krenke and Kollmar (1998) and Van der Meer, Dixon and Rose (2008) that parents can be inaccurate in their description and perception of their child/ren's behaviour particularly when under stress. Given the target population for PEP and that the majority of the parent's recruited reported high stress in their home environment there was a need for direct observations through in-home video recordings. Alternatively, Barr, Kramer, Boisjoly, McVey-White and Pless (1988) reported that parent behaviour reports in diaries are accurate and provide useful insight to the parent/child/home situation, thus providing a sound rationale for including behaviour diaries as a source of data. Another reason to include in-home video and diary data was to make sure that the 10 minute video samples did not exclude any data. However, because only one parent

video recorded their interactions, this study cannot comment on the time appropriateness of the 10 minute behaviour time samples. It is possible that the 10 minutes may not have been long enough to capture the routine in its entirety. The researcher was also aware that parents could potentially experience technological difficulties with the video such as an inability to turn on the camera, pointing the camera in the wrong direction so the recording did not capture parent-child interactions or the camera battery going flat. Thus, there was a need to have an additional method of collecting data.

As it turned out in this study, the parents were responsive to writing in the dairy logs but had difficulty with videoing in the home situation. The main issue with parents using the video was that they forgot to turn it on or in one case, a parent reported that she was so angry with her child that she didn't want her response to be on camera. Parents seemed to not understand the importance for all data points from both sets of data being completed. Parents thought they could complete a diary log entry or a video rather than completing both of these together. Even after this was explained individually to the parents, the parents did not see the need or understand the reasoning for both types of data to be recorded and continued with either the diary or videos. Another example of misunderstanding the importance of data collection was when A2 and A3 did not complete the in-home data requirements separately. These two participants were given separate diaries and were requested to take their own set of data. However, as the couple resided together they only collected data from one participant, even after given additional instructions, post baseline complete separate diary logs and in-home video recordings individually.

Interestingly, in the present study when one parent completed both the diary log entries and video recordings both sources of data matched perfectly. This finding further supports the work of Barr et al. (1988) who found parents were able to accurately record their child's behaviour when using behaviour diaries. The specific template of the diary logs may have

also assisted this parent to record accurately as well. On reflection, it would have been advantageous to have a space in the diary logs for parents to record the duration of problem behaviour and the total time of the routine as well. This would have given greater context and accuracy to the behaviours incidents but overall, the diary log was an effective way to gain behavioural data on child behaviour during a family routine.

Cultural Considerations.

The PEP content and delivery aimed to meet the needs of New Zealand families who are experiencing behavioural difficulties with their children during home routine times. The ways in which PEP endeavoured to incorporate Māori worldviews are discussed followed by future adaptations which could make PEP more culturally appropriate for Māori families.

During the programme, the researcher was mindful that when discussing child and parent behaviour this was viewed from a wellbeing perspective of *Taha Whanau*/family and social wellbeing, *Taha Hinengaro/*mental wellbeing, *Taha Tinana*/physical wellbeing and *Taha* Wairua/spiritual wellbeing (Robson & Harris, 2007). This was attempted to be included in the teaching of the PEP course material by recognising the importance of social and familial health and looking at problem behaviour in response to the environment, not as an internal problem of the child.

The workshops also followed the *Hui* process as described by Pitama et al. (2014) as each workshop included the *mihimihi* (initial greeting engagement), *whakawhānaungatanga* (making a connection), *kaupapa* (attending to the main purpose of the encounter), and *poroporaki/whakamutunga* (closing the session). This model of engagement drew on traditional protocols and sat comfortably with the delivery of the PEP, as building relationship was a paramount aim of the programme.

An adaptation for PEP could be in changing the description of participants it seeks. PEP is described as a parenting programme however, within Māori culture is it typical for children

to be cared for by multiple caregivers including their biological mother and father, grandparents, aunties and uncles, older siblings or cousins and community leaders (Robson & Harris, 2007). In respect of this, the programme should be offered and delivered as a programme in which any caregiver of a child can participate or, multiple family members can be given the opportunity to participate.

Limitations

There were some limitations to the present study. The limitations include communication difficulties as a result of the differing locations in the country between researcher and, participant and technology problems. These aspects are discussed and possible solutions for future research are presented.

Communication. The researcher and the participants resided in different parts of the country and there were some communication problems which were unsolved during the study. To try to mitigate these problems, the researcher modelled how to use the videos and write in the diary logs and provided some practice opportunities for these skills. She also emailed, text messaged, used phone call reminders, supplied prepaid postage envelopes and gave parents the opportunity to contact her at any time with any queries or questions. However, even with these communication strategies in place, parents struggled to use the data gathering tools and understand what was required of them with regard to the actual data collection procedures. Some communication occurred via email. This proved to be a limitation in that some of the instructions delivered were misunderstood or misinterpreted by the participants. In order to overcome this communication breakdown, it is suggested that future researchers spend more time explaining what is required of participants and to spend time explaining the rationale of the project and research procedures. Had parents been given this extra time these limitations may not have been present. Unfortunately, no firm

conclusions as to the effectiveness of PEP can be drawn from the limited data which was presented by the parents.

Technology. As mentioned earlier, part of data collection relied on the use of a video recording device. Unfortunately, the small video camera (the size of a UBS stick) appeared difficult to use by the parents and resulted in minimal recordings being collected. The three parents which consented to taking in-home video recordings were given the video recording device with step-by-step instructions on how to record, save and charge the device. Participants were also shown how to use their device in person by the researcher. Even with these examples, these parents experienced difficulties such flat batteries, aiming the camera in the wrong direction, failing to press record and not saving their recordings which resulted in gaps in data collection. This limited the reliability of the behavioural recordings. In light of this, future research could investigate technology proficiently of parents before use in the home setting.

Implications and Future Direction.

There are some implications which may help direct future research. The findings in this study showed that parents can be trained in a group setting in basic functional assessment skills and then successfully implement a function-based intervention programme in their home in a relatively short period of time. All participants anecdotally shared that they felt that after completing PEP, their response to problem behaviour had changed and consequently their child engaged in much more prosocial behaviour than before the programme. At present, there is little research which follows parents into their homes after they have been trained in functional assessment and function-based intervention strategies. In light of this, future research could focus on investigating parent implementation of function-based intervention strategies in their home environment and consider whether additional coaching or resources are needed to support the generalisation of this new knowledge to the home

setting. In addition, researchers are encouraged to investigate what methods of programme delivery enhance rapid learning for parents and to consider what teaching materials and activities best facilitate consolidation of behaviour intervention skills.

The results of the pre and post knowledge quizzes indicate that the content, materials and delivery of PEP increased all the parent's knowledge and understanding of FBA and function-based intervention strategies. These results indicate that PEP is worth future refinement and development. Future research could investigate replicating PEP with other parent groups and trialling other means of gathering in-home data.

Training parents in a group setting has additional benefits for parents. All the parents in this study acknowledged that the group setting facilitated positive relationships between themselves and this resulted in a strong support network amongst this group. The parents also talked about having 'play dates' with their children, thus indicating that a strong relationship had been built over the two weeks of the teaching phase. It would be interesting for future research to consider what aspects of the group training facilitates these supportive networks and what implications this has on their learning and application of the resulting intervention and positive outcomes for them and their child(ren).

Conclusion.

The Parent Empowering Programme (PEP) was a behaviour management programme that trained parents in basic functional behaviour assessment and function-based intervention strategies during two-three hour group workshops. PEP utilised New Zealand resources such as original instructional vignettes and a parent handbook. This is a considerably less amount of training time than other well established parent training programmes that have similar aims. A key difference in the PEP programme was the inclusion and emphasis of behaviour

function which is not included in other well established parent behaviour management programmes.

Parents reported that after completing PEP they experienced considerable change in themselves in that they focused more on 'catching their child when they were good' and set up home routines which were fair and consistent. As a result, they observed increased prosocial behaviour in their child. Parents reported that the group setting encouraged friendships and fostered a support network between the participants and their children.

There were some limitations to the study such as miscommunication with parents and video technology issues. These limitations effected data collection and resulted in little in-home behaviour data being recorded. These limitations and learnings may assist future research collect data from parents in the home setting.

The findings of this study support the small number of research projects which indicate that parents can be taught functional behaviour assessment skills but this current project has provided preliminary evidence that parents can also be taught and implement, with some success, function-based intervention strategies in their home with only two, three hour teaching sessions. Future investigations of PEP appear warranted.

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APPENDICES

Appendix A: PEP Workshop 1 PowerPoint

Parent Empowering Programme Workshop 1

Functional Behaviour Assessment and Positive Behaviour Intervention Strategies.

Principal researcher: Ilia Lindsay

Project Consultants : Dr Gaye Tyler-Merrick
Mr. Lawrence Walker

1

Welcome and Thank-you

* My aim
* Who are you
* Handbooks and workshop content 
* Questionnaire1

2

Outline

WORKSHOP 1

* Routines
* Problem Behaviour
* Identifying behaviour
* Measuring behaviour
* What Causes and Effects Problem Behaviour: *Antecedents*
* Consequences and Strategies
  - *Attention*
  - *Praise and Encouragement*
  - *Extinction – Planned Ignoring*
  - *Timeout- Sit and Wait*
* Helpful Tips
* Home Task

3

Goal Setting

1. What do you want out of this programme?
2. What do you want to change about your home situations?
3. What do you want to change about your interactions with your child(ren)
4. Anything else?

4

Why Routines?

* Routines help toddlers and young children learn self-control
* Routines guide positive behaviour and safety.
* Routines support children's social skills
* Routines help children cope with transitions
* Routines are an important learning opportunity
* Routines can bring you and your child closer together.

5

Behaviour

* Problem Behaviour

1. What?
2. Who and When?
3. Why?

* Identifying behaviour
* Measuring Behaviour

6

Identify Behaviour Exercises

CIRCLE WHICH OF THE FOLLOWING ARE BEHAVIOURS?

Laughing	Frustration	Smiles	Tantrum
Sad	Yelling	Caring	Tired
Hitting	Swearing	Lazy	Angry
Ignoring	Concentration	Running Away	

VIDEO EXERCISE:

What emotions does the child show?

What emotions does the parent show?

Identify ALL child behaviours:

Identify ALL parent behaviours:

7

Measuring Exercises

1. Duration
   How long does the behaviour occur?
2. Frequency
   How often does the behaviour occur?

Behaviour	Measurement Type

VIDEO EXERCISE: FILL OUT THE GRID BELOW

TARGET BEHAVIOUR	DURATION/ FREQUENCY

8

Cause and Effect of Behaviour

Antecedents = Causes, Triggers, Before the behaviour

- Environmental
- Individual
- Situational

Consequences = Effects, After the behaviour

- Reinforcement
- Punishment

9

Antecedent Control/Manipulation

- What have you identified that you can control?
  - What could you remove or prevent?
- What have you identified which are uncontrollable
  - Factors of life
  - Unforeseeable events

10

Consequences and Strategies

Attention

Positive, Negative, Withdrawn

WHAT FORMS OF ATTENTION COULD YOU USE IF...

Your child sits at the table for a meal?

Your child asks permission before taking or taking an item?

Your child starts to yell at you when you ask them to come to the dinner table?

Your child smiles whilst playing with you?

Your child willingly shares their toys with a peer or sibling?

Your child tantrums when you ask them to pack up?

WHAT ATTENTION STRATEGIES DO YOU ALREADY USE?

WHAT ATTENTION STRATEGIES DO YOU WANT TO USE MORE OF?

11

Consequences and Strategies

Praise and Encouragement

Needs to be:

- Descriptive
- Physical Warmth
- Immediate

Well Done	Well Done on completing all your homework today, I know it was hard!
Wow you've gotten so good!	Wow you've become so good at getting yourself ready for school!
Massive Hi-5!	Massive Hi-5 for eating all of your dinner tonight!

12

Consequences and Strategies

Extinction – Planned Ignoring

1. No eye contact
2. Neutral Face and Body
3. Continue with your activity

BE CONSISTENT

Beware of the Burst...

13

Consequences and Strategies

Inclusive Time out – Sit and Wait

Step1: Come down to the child's level and explain what behaviour they are doing which is not acceptable and why, as well as what behaviour you would like to see.

Step2: If child engages in the behaviour again remove them to an area close by. Explain to the child they will be on time out for 'x' amount of time because they (insert problem behaviour).

Step3: If child moves from area, take them back and give no extra attention.

Step4: Once time is up return to the child, explain what is they did wrong once more and explain behaviour you would like to see instead. Ask them if they are ready to come out of time out.

Step5: When you see child behaving as asked, give praise and attention.

14

Helpful Tips

- Limited and Reasonable
- Catch Your child Being Good
- State Expectations in Advance
- Say 'When'
- Staying Calm
- Say 'First'

15

What we have covered

- Why routines are important
- What is behaviour and how to identify and measure it
- What causes and effects behaviours
  - Antecedents (environmental, individual, situational)
  - Consequences (punishment, reinforcement)
- Attention
- Praise and Encouragement
- Planned Ignoring
- Sit and Wait

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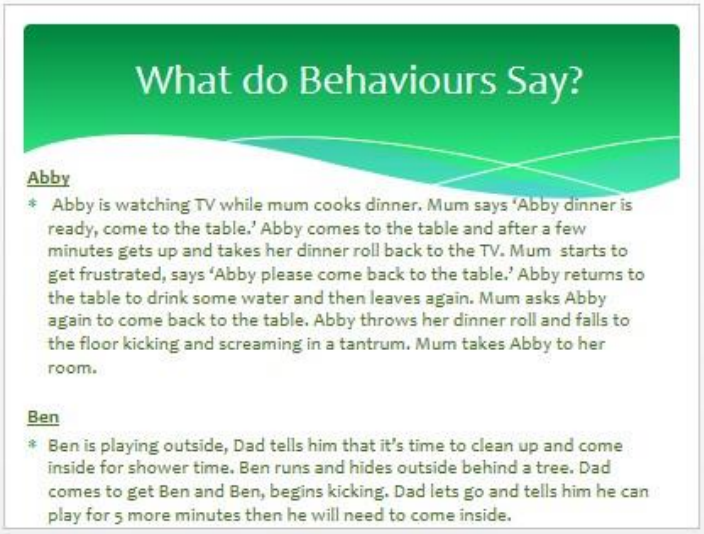
Appendix B: PEP Workshop 2 PowerPoint

1

2

3



4

What do Behaviours Say?

Taylor

* Taylor and Mum are playing together in the lounge. Mum tells Taylor that she needs to go and get ready for work in 5minutes so they only have 5minutes left to play together. Once 5minutes has passed Mum tells Taylor she must go and get ready for work now and gets up to leave for the bedroom. Taylor follows mum down the hall and pulls at Mum's clothes. Mum askes Taylor to please stop she needs to get ready. Taylor then takes Mum's handbag and empties its contents to the floor. Mum asks Taylor to please go back to the lounge she needs to get ready. Taylor begins to cry and yell in a tantrum. Mum removes Taylor to the lounge showing no other attention and returns to get ready.

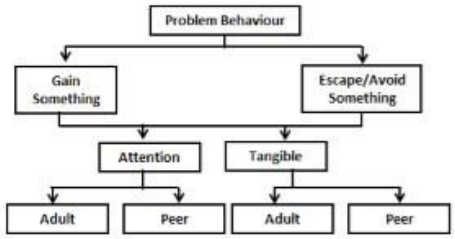
5

Simplest Functions of Behaviour

* Attention
* Escape/ Avoid
* Tangible/ to gain an object or goal.

6

Functions of Behaviour



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Functions of Behaviour

* Attention
* Escape or Avoid
* Tangible

8

Functional Behaviour Assessment FBA

From a FBA we can:

* Prevent the predictors (antecedents)
* Teach alternative behaviours to the problems
* Increase the alternative behaviours and decrease the problem behaviours

Steps of FBA

1. Complete an ABC
2. Create a summary of the pattern of behaviour
3. Identify the Function of Behaviour
4. Select an appropriate consequence

9

Identifying Function: Using A - B - C

WHAT?

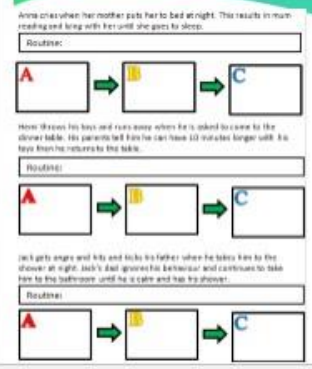
* A = Antecedents
* B = Behaviour
* C = Consequence

HOW?

* 1 = Behaviour
* 2 = Antecedents
* 3 = Consequence

10

A – B – C Exercise



A = Antecedents, what happens before the behaviour

B = Behaviour, what is the observable action

C = Consequence, what happens after the behaviour and will effect if this behaviour happens again.

14

Identifying Function: The Summary

When you create a summary statement you write about all three ABC components and finish with what the ABC shows the function of behaviour is

* *Example: When Kate is asked to get changed in the morning she runs to her room and slams the door. Her mother ignores her and continues to get ready.*
* A = asked to get changed
* B = runs to room and slams door
* C = mother ignores and continues to get ready

Summary: Kate runs away when she is asked to get changed. Her mother ignores this behaviour. Kates behaviour is to escape or avoid getting changed.

15

FBA Video Exercise

The process of using ABC and summary statements to work out the function =

a Functional Behaviour Assessment

Feel free to write a summary statement underneath each box if its helps you to work out the function

16

Behaviour Support Plans

Key Components – these can be used individually or collectively within a Behaviour Support Plan.

* Prevention
* Replacement
* Consequences that match behaviour function

17

Behaviour Support Plans

WHAT?

* Plan that reduces problem or difficult behaviour by making it **INEFFECTIVE, IRRELEVANT** and **INEFFICENT.**
* Behaviour Support Plans can include:

Prevention Strategies
Replacement Behaviours
Consequences which match with behaviour function

18

How to Create a Behaviour Support Plan

Make sure that you **recognise** the replacement behaviour when it happens!

Make sure the **replacement behaviour meets the needs of the child** – they use the problem behaviour because it works! So **make sure the replacement behaviour works!**

19

Prevention Strategies in Behaviour Support Plans

- The first 'I' – irrelevant

If we change, manipulate or remove the *antecedent/trigger* we can minimize the behaviour .

- Keep it simple
- Explain what will come
- Make your child comfortable
- Offer help
- Use a job/sticker chart
- Reduce distractions
- Prepare activity ahead of time
- Make the activity fun
- Give warning
- **Attend to your child when they are good**
- **Quality playtime**

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Prevention Strategies Exercise

22

Replacement Behaviours in Behaviour Support Plans

- The second 'I' – inefficient

New Skills and Replacement Behaviours can be simple teachings such as:

- Asking for a turn
- Asking for an object
- Asking for an activity or privilege
- Asking for a hug
- Asking to leave
- Saying 'NO'
- Make a choice
- Follow a routine

We can't always teach a replacement behaviour – some things children just HAVE to do (safety/health) in this case we can add 'prevention strategies' and 'replacement behaviour' together to change behaviour eg Seat belt buddy = teaching a new behaviour but also changing the antecedent/trigger

23

How do you teach Replacement Behaviour?

- Replacement behaviour needs to have the same rewarding consequences that are maintaining the current problem behaviour.

- Be a model
- Communicate
- Reinforce and Encourage
- Make Easy

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Replacement Behaviour Exercise

Problem Behaviour	Replacement Behaviour	How to teach/reinforce
Hitting for Attention		
Screams/Yelling when making Requests		
Hurting Siblings/Peers for an Item		
Running away from difficult tasks		

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Matching Function and Consequences

- Third 'I' - ineffective

- Reinforce = encourages, promotes, increases likelihood of behaviour
- Punishment = discourages, decreases likelihood of behaviour

Consequences we have learnt: Attention, Praise and Encouragement, Extinction, Planned Ignoring, Inclusive Timeout, Sit and Wait.

- Consistency and Follow through

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Function of Behaviour Recap

* Attention - behaving to gain attention

Function of Behaviour: ATTENTION

* Escape – behaving to escape a demand or task

Function of Behaviour: ESCAPE

* Tangible - behaving for a more favourable situation or item

Function of Behaviour: TANGIBLE

27

Ideal Consequence Exercise

FUNCTION	ANTECEDENTS	BEHAVIOUR	CONSEQUENCE

28

Creating your behaviour Plan

Put it All Together

* A – B – C
* Function
* Prevention Strategies
* Replacement Behaviour
* Consequences

29

You Have Made it!

We have Covered and What you can do:

* What is Behaviour?
* How to Measure Behaviour
* What Causes and Effects Problem Behaviour?
* Antecedents, Consequences and Strategies
* Function of Behaviour
* Functional Behaviour Assessment (FBA and A-B-C)
* Behaviour Support Plans
* Matching Function to Consequences
* Your Behaviour Plan
* Implementation at home

30

Scale – From Start to Now

0 ⟶ 10

REGARDING KNOWLEDGE AND CONFIDENCE:

Where were you on the scale at the start of this workshop?

Where are you now?

31

The End

* Assessment
* In Home Videos
* Discussion and Any Questions?

Thank you All So Much,

Good Luck

you can do it!

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Appendix C: Parent Handbook

Parent Empowering Programme

New Zealand Workshops for: Functional Behaviour Assessment and Positive Behaviour Intervention Strategies

Parent Workshop Handbook

2016

Principal Researcher: ***Ilia Lindsay***

Project Consultants: *Dr. Gaye Tyler-Merrick*

Mr. Lawrence Walker

Acknowledgments

Thank you to my supervisors Dr. Gaye Tyler-Merrick and Mr. Lawrence Walker for your contribution and direction in the making of this handbook.

Thank you to the Child and Family Psychology department of the University of Canterbury for your involvement in the instructional vignettes.

Thank you to Sarah Whitcombe-Dobbs and her family for being the actors and actresses in the instructional vignettes.

Thank you to the Stronach, Lindsay and JK Danceworks families for allowing their photographs to be taken and used throughout this handbook. All photography has been consented for and released to the principal researcher for publication. All other pictures and diagrams were sourced from clipart or created manually.

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Parent Empowering Programme; *Teaching Parents Functional Behaviour Assessment and Positive Behaviour Intervention Strategies*

Kia Ora, Welcome!

This parent training programme is designed to help you develop skills and knowledge on Functional Behaviour Assessment and Intervention Strategies so that you can use these skills to make routine times easier for your family. This will be done through two parent group workshops.

What is this programme?

The training workshops have been created based on the previous successful work of Shayne and Miltenberger (2013); Fettig and Barton, (2014) and McNeill, Watson, Henington, and Meeks, (2002). The workshops you are participating in have been adapted to be suitable for use for New Zealand families. In addition, this training programme has the added component of in-home video examples as a way of supporting the handbook material.

The workshops focus on teaching you how to identify the function and appropriate consequence or intervention strategy for your child's difficult behaviour through a technique called Functional Behaviour Assessment. This programme stresses that understanding the function of a child's behaviour is critical in shaping appropriate antecedents and consequences to replace the difficult behaviour.

Why has this programme been developed?

It is well documented that young children with difficult behaviours are at risk of causing disruption to the entire family system (Fettig, Schultz & Sreckovic, 2015) and that the continued existence of difficult behaviour patterns has been associated to later detrimental social and academic development (Fox, Dunlap & Cushing, 2002). However, when appropriate interventions and strategies are put in place this risk is reduced. Parents have a unique relationship with their child that allows them to have strong influence and direction on their child's behaviours. This makes parents the best people to be taught to implement behaviour interventions and strategies for their child(ren).

OUTLINE OF SESSIONS

Workshop 1

Introduction

Knowledge Assessment 1

Problem Behaviour

Antecedents, Consequences and Strategies

Helpful Tips

Home Task

Workshop 2

Recap

Functions of Behaviour

Functional Behaviour Assessment

Behaviour Support Plans

Knowledge Assessment 2

Discussion

Parent Empowering Programme; *Teaching Parents Functional Behaviour Assessment and Positive Behaviour Intervention Strategies*

ASSESSMENT CHECKLIST

Knowledge Assessment

1 ☐

2 ☐

In-home video assessment

Baseline **1** ☐ **2** ☐ **3** ☐

Post Workshop **1** ☐ **2** ☐ **3** ☐

Follow up **1** ☐

YOUR GOALS

GOAL 1: What do you want to get out of this programme?

_____

_____

_____

GOAL 2: What do you want to change about your home situation?

_____

_____

_____

GOAL 3: What do you want to change about your interactions with your child(ren)?

_____

_____

_____

GOAL 4:

_____

_____

_____

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WORKSHOP 1

Routines

Problem Behaviour

Identifying behaviour

Measuring behaviour

What Causes and Effects Problem Behaviour: *Antecedents*

Consequences and Strategies

Attention

Praise and Encouragement

Sit and Wait

Planned Ignoring

Helpful Tips

Home Task

WHY ROUTINES?

The benefits of routines and why parents should work to resolve difficulties in daily routines with their child:

1. Routines help toddlers and children learn self-control
2. Routines guide positive behaviour and safety.
3. Routines support children's social skills
4. Routines help children cope with transitions
5. Routines are an important learning opportunity
6. Routines can bring you and your child closer together

What routine do you have difficulty with, with your child?

What makes this routine difficult?

How often in a week does this occur?

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PROBLEM BEHAVIOUR

WHAT?

Behaviour is simply defined as an action that can be observed (seen) and measured (counted or timed). This means that 'anger' and 'frustration' are not behaviours. These are emotions. However, throwing toys, hitting sibling and yelling are all observable instances that are measureable and therefore are BEHAVIOURS.

Examples of 'Good' Behaviour your child shows:

Examples of 'Problem' Behaviour your child shows:

WHO and WHEN?

It is common for children to display difficult behaviours such as tantrums, noncompliance and outbursts (yelling, screaming, crying) as a part of their normal development. It is also very common for children's misbehavior to occur around certain daily routines such as; bed, bath or eating times.

WHY?

Sometimes parents do not respond to inappropriate behaviour in an appropriate way which can result in children being confused about what is the 'right' way to respond and what is the 'wrong' way to behave. This can promote problem behaviour.

IDENTIFYING BEHAVIOUR

CIRCLE WHICH OF THE FOLLOWING ARE BEHAVIOURS?

Laughing	Frustration	Smiles	Tantrum
Sad	Yelling	Caring	Tired
Ignoring	Angry	Lazy	Sensitive
Hitting	Swearing	Concentration	Running Away

VIDEO EXERCISE:

What emotions does the child show?

What emotions does the parent show?

Identify <u>ALL</u> child behaviours:

Identify <u>ALL</u> parent behaviours:

Parent Empowering Programme; *Teaching Parents Functional Behaviour Assessment and Positive Behaviour Intervention Strategies*

MEASURING BEHAVIOUR

When identifying problem behaviour and planning behaviour management strategies it is important to measure how often or how long behaviour occurs.

Measuring behaviour is useful for the design of interventions and consequences. As well as being necessary for assessing whether behaviour is increasing or decreasing due to the intervention or consequence.

There are two main characteristics that are important when measuring behaviour.

1. *Duration*
   How long does the behaviour occur?

2. *Frequency*
   How often does the behaviour occur?

Sometimes behaviours require both duration and frequency count.

Behaviour	Measurement Type

MEASURING BEHAVIOUR

VIDEO EXERCISE: FILL OUT THE GRID BELOW

TARGET BEHAVIOUR	DURATION/ FREQUENCY

Parent Empowering Programme; *Teaching Parents Functional Behaviour Assessment and Positive Behaviour Intervention Strategies*

WHAT CAUSES AND EFFECTS PROBLEM BEHAVIOUR?

ENVIRONMENTAL FACTORS (ANTECEDENTS)

Factors or events within the environment can influence whether behaviour will occur. Certain environments have different behavioural effects on your child such as; structure vs unstructured tasks, messy vs clean, or loud vs quiet sounds. These are events or factors which can be identified before the behaviour occurs and these are called antecedents.

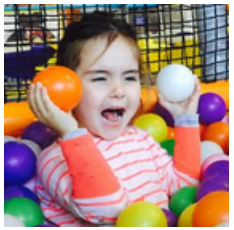
Environmental Antecedents which effect your child:

INDIVIDUAL CHARACTERISTICS (ANTECEDENTS)

Unique characteristics of your child may contribute to the behaviours they display. These characteristics could be continuously present such as attention or learning disorders, or may be reliant on emotional state and internal needs of the child such as being tired, hungry, thirsty, feeling ill. These factors can be identified before the behaviour occurs and are another type of antecedent.

Individual Antecedents which effect your child:

SITUATION CHARACTERISITICS (ANTECEDENTS)



When children are asked to carry out or end a task, characteristics of the task itself such as if the task is too hard, easy, boring, or stimulating, can cause problem behaviour. Situation characteristics can also include the presence of certain people or the absence of certain people.

Situation characteristics which affect your child:

CONSEQUENCES

Events that occur after behaviour are called consequences. Consequences can either reinforce or punish behaviour. Depending on the type of consequence, these events can increase the likelihood of behaviour occurring again (reinforcement) or, decrease (punishment) the likelihood of behaviour occurring again.

What consequences have you tried/used with your child?

Reinforcement (increases likelihood of behaviour):

Punishment (decreases likelihood of behaviour):

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CONSEQUENCES AND STRATEGIES:

Attention

WHAT?

When you give a child your focus such as through eye contact, physical actions (helping the child, picking the child up), verbal expressions (telling the child off or praising the child,) and body language (smiles, rolling eyes, crossed arms) you are giving attention.

Positive	**Negative**
	

WHEN and HOW?

Attention can be used as a reinforcement consequence but there are both appropriate and inappropriate ways to use this.

When a child is well behaved it can be effective to show positive attention. Verbal expressions and body language will reinforce the behaviour.
When the child is misbehaving it can be effective to withhold attention. This will act as a punishment to the behaviour and will be discouraged.

When a child is well behaved parents often forget to give positive attention. If attention is not given to the good behaviours shown, this can act as a punishment and decrease the likelihood of the child being well behaved in future.
When a child is misbehaving parents often give negative attention and forget to show their child what the more appropriate behaviour they should use is. Negative attention when a child is misbehaving can act as a reinforcer and increase the likelihood of the behaviour.

It is important that when attention is being used as a consequence for the purpose of punishment or reinforcement it needs to occur immediately after the behaviour.
The type of attention (or lack of attention) needs to be VERY clear to the child.

WHAT FORMS OF ATTENTION COULD YOU USE IF…

Your child sits at the table for a meal?

Your child asks permission before talking or taking an item?

Your child starts to yell at your when you ask them to come to the dinner table?

Your child smiles whilst playing with you?

Your child willingly shares their toys with a peer or sibling?

Your child tantrums when you ask them to pack up?

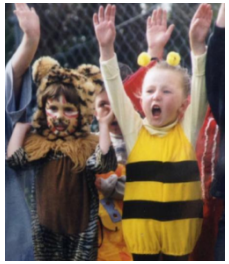
WHAT ATTENTION STRATEGIES DO YOU ALREADY USE?

WHAT ATTENTION STRATEGIES DO YOU WANT TO USE MORE OF?

CONSEQUENCES AND STRATEGIES:

Praise and Encouragement

WHAT?



Praise and Encouragement are easy and effective strategies to increase the likelihood of appropriate behaviours occurring again. They are both a type of positive attention. Praise and encouragement can occur through verbal comments PRAISE: '*Good job! Well Done! Wow you've gotten so good! Massive Hi-5!*' ENCOURAGEMENT: '*You can do it! Give it another ry! You're so close, almost there*!' You can double the impact of praise and encouragement by including physical warmth such as a cuddle or 'hi-5'.

WHEN?

When a child is completing any task or request it is important to give praise and encouragement simultaneously. Your attention will strengthen and reinforce their behaviour and they will do this behaviour again in the future.

HOW?

Descriptive praise is more effective and requires the parent to not just congratulate the child but to include what specifically they have done well. Parents can increase the impact of praise by using physical actions such as hugs, smiles, Hi-5!
Similarly, encouragement can also occur through physical acts such as, helping a child complete some of the task that is difficult and then allowing them to finish the rest of the difficult task.

HOW TO: *DESCRIPTIVE PRAISE*

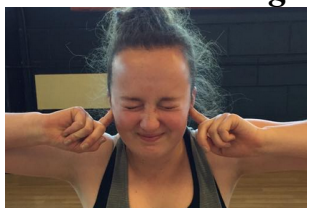
Well Done	→	Well Done on completing all your homework today, I know it was hard!
Wow you've gotten so good!	→	Wow you've become so good at getting yourself ready for school!
Nice, Hi-5!	→	Massive Hi-5 for eating all of your dinner tonight!
	→	
	→	
	→	

CONSIDER YOUR FAMILY ENVIRONMENT

List the behaviours you would like to see LESS of:	List the behaviours you would like to see MORE of:	List ways to PRAISE or ENCOURAGE your child to use the behaviours you would like to see more of:

CONSEQUENCES AND STRATEGIES:

Extinction – Planned Ignoring



WHAT?

Extinction, otherwise known as planned ignoring, is exactly that. Seeing or knowing your child is going to misbehave but planning to ignore it. By ignoring your child's action they do not receive any reinforcement to continue the behaviour and they will stop – the behaviour will become 'extinct.

WHEN?

This consequence is most effective when your child is misbehaving for attention purposes. For example, you have asked your child to stop pulling at your clothes, when they are whining or whinging show them no attention and continue your activity.

HOW?

To effectively use this strategy there are a few key things to remember:

1. Do not give eye contact
2. Try to maintain neutral facial expression and body language
3. Continue to carry on with your activity

Once the child ceases the problem behaviour it is important to then attend immediately to their positive behaviour and give positive attention so that their appropriate behaviour is reinforced.

What situations do you think extinction or planned ignoring would be useful for you and your family?

What may be difficult about extinction and planned ignoring?

Ideas for how these difficulties can be overcome?

Extinction bursts commonly occur when you first use this strategy. An ''extinction burst'' is the increase of the problem behaviour before it decreases. It is important to be aware of this burst and its high likelihood of occurring. For extinction to work, parents must continue to ignore the behaviour even when this "burst" occurs as if you do not then the misbehavior will only continue but at a higher rate. If ignored, then the behaviour will cease

STICK TO YOUR GUNS! – Be consistent!

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CONSEQUENCES AND STRATEGIES:

Sit and Wait Strategy

WHAT?

Inclusive time out, thinking time, sit and wait are all common names for this strategy. Sit and Wait is when you remove a child from the activity but the child is within sight of the place of the misbehavior. For example, if a child is throwing toys at their sibling, then the parent removes the child from the activity but **stay in the same room**. Inclusive time out has punishment and reinforcement components. The problem behaviour is decreased and when 'Sit and Wait' is completed, the child is shown the appropriate behaviour to do and is reinforced for showing this behaviour.

WHEN?

Sit and Wait is a consequence that is used when a child is engaging in dangerous behaviour causing harm or disruption to others or property. It is important that if you are using this strategy that is occurs immediately after the problematic behaviour occurs **– not delayed response.**

HOW?

1. Come down to the child's level and explain what behaviour they are doing which is not acceptable and why, as well as what behaviour you would like to see.
2. If child engages in the behaviour again remove them to an area close by. Explain to the child they will be on time out for 'x' amount of time because they (insert problem behaviour).
3. Sit beside the child – if necessary hold them in the spot but otherwise do not show any interaction with them
4. Once time is up return your attention to the child, explain what is they did wrong once more and explain behaviour you would like to see instead. Ask them if they are ready to come out of time out and do the appropriate behaviour.
5. When you see child behaving as asked, give praise and attention.

The amount of time a child remains in time out is suggested to be **5 minutes or 1minute for every year old.*

PRACTICE SCRIPT

SIT AND WAIT FOR YOUR FAMILY SITUATION.

Step1:

Step2:

Step3:

Step4:

Step5:

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HELPFUL TIPS

LIMITED AND REASONABLE

Most children struggle with decision making and this can be a predictor of problem behaviour. Learning to make decisions and take responsibility requires plenty of support and practice. A way of helping your child develop this is to offer your child limited and reasonable choices. Give two options, keep choices clear and concise.

CATCH YOUR CHILD BEING GOOD!

When you see behaviour you want to see more of, encourage it at every opportunity. Acknowledgment doesn't need to be a grand gesture, just let your child know you appreciate their behaviour.

STATE EXPECTATIONS IN ADVANCE

When asking a child to do a task, explain what behaviours you expect right from the start, this way there is no room for confusion and the child understands the boundaries.

SAY 'WHEN

It is important to giv children time limits o instruct when you would like a task or request done. Make sure you state the time limit or timing of when the task needs to be done to remove confusion from the child.

STAYING CALM!

When child behaviour is challenging you can either respond or ignore it. If response is needed, LESS IS BEST.
Act calmly, remain calm.
The more out of control a child becomes the more self-control you need to show.
You are your child's model; model what you want to see in them.

SAY 'FIRST'

By asking a child to do something 'first' is a simple way of explaining that they must do something before they can do something of their choice.
When using 'first' statements, you need to make sure you:

1. Have a positive focus
2. Are reasonable
3. Have set time limits
4. Follow through if child does or doesn't follow instructions.

HOME TASK

WHAT WAS THE MOST INTERESTING/VALUABLE THING YOU LEARNT IN WORKSHOP 1?

WHAT CONSEQUENCE OR STRATEGY DO YOU THINK WOULD WORK WELL WITH YOUR CHILD?

WHAT CONSEQUENCE OR STRATEGY DO YOU THINK WOULD NOT WORK WELL WITH YOUR CHILD?

ATTEMPT TO IDENTIFY AND MEASURE THE BEHAVIOURS PRESENT IN YOUR CHILD'S DIFFICULT ROUTINE:

WRITE AN ENCOURAGING NOTE OR POSITIVE COMMENT TO YOURSELF ABOUT SOMETHING YOU DID WITH YOUR CHILD THAT YOU ARE PROUD OF.

Parent Empowering Programme; *Teaching Parents Functional Behaviour Assessment and Positive Behaviour Intervention Strategies*

WORKSHOP 2

What do Behaviours Say?

Function of Behaviors

Attention, Escape/Demand, Tangible

Functional Behaviour Assessment

Identifying Functions – ABC

Identifying Functions – Summary

Behaviour Support Plans

Competing Pathways

Prevention Strategies

Replacement Behaviours

Matching Function to Consequences and Strategies

My Behaviour Support Plan

WHAT DO BEHAVIOURS SAY?

The way we as humans behave has a purpose or a function. The behaviour we display has an aim – for fun, to make us happy, to relax, to get attention, to escape, to obtain a goal/object.

EXERCISE:

ABBY

BEN

TAYLOR

As we get better at understanding WHY behaviour occurs, we become better at understanding WHAT to do about it.
By understanding the function of problem behaviour we are able to decide which consequence or strategy would be most effective in reducing the likelihood of the problem behaviour or which would be the most effective in promoting and encouraging better alternative behaviour.

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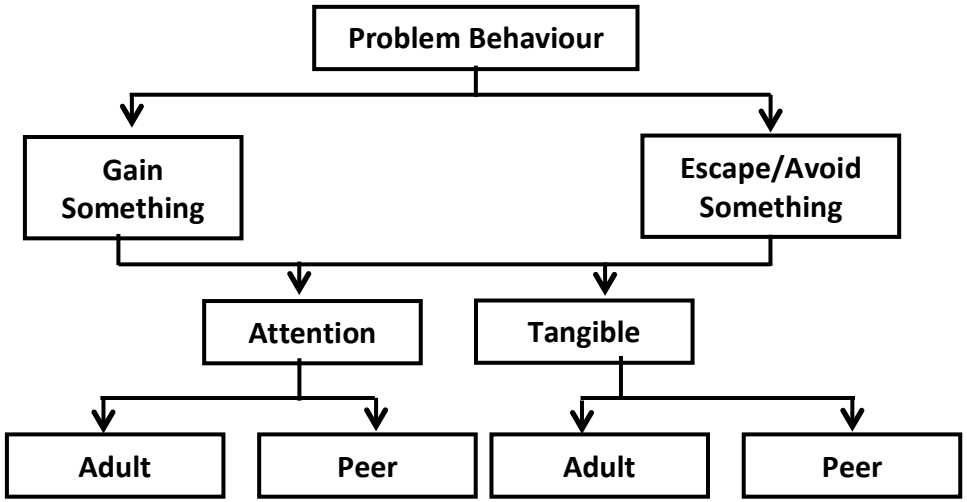
FUNCTIONS OF BEHAVIOUR

The most common functions of all behaviours are shown below.



Functions of behaviour are the WHY of behaviour.
That is, they help us to understand WHY children behave the way they do.

'Function' refers to the motive behind behaviour and can help us understand WHY behaviours continue/end or WHY they get more frequent/less frequent.

FUNCTION OF BEHAVIOUR;

Attention, Escape/Demand, Tangible

ATTENTION

WHAT?

When a child is denied attention they engage in problem behaviours in the aim to get attention back. Or to remove attention from themselves.

YOUR CHILD:

ESCAPE/ AVOID

WHAT?

When a child is asked to begin or finish a task they engage in problem behaviours in the aim to get out and escape or avoid the demand.

YOUR CHILD:

TANGIBLE

WHAT?

When a child wants an item, privilege or preferred task (tangible) they engage in problem behaviour until they receive the desired tangible.

YOUR CHILD:

FUNCTIONAL BEHAVIOUR ASSESSMENT

Functional Behaviour Assessment or FBA allows us to see the pattern of behaviour and make an educated guess of the function of the behavior.

FBA is a valuable tool as from the summary statement we can identify strategies to either;

- Prevent the predictors (antecedents)
- Teach alternative behaviours to the problems
- Increase the alternative behaviours and decrease the problem behaviours

FBA uses a format called ABC (Antecedents – Behaviour – Consequence) to determine what the function of a child's behaviour is.
The summary or pattern of behaviour that can be seen by using ABC helps us to decide what consequence is most appropriate for encouraging or discouraging the behaviour in focus.

When parents learn FBA and can perform its processes effectively, children's problem behaviour has been shown to decrease as a result of the parent's new knowledge and skills of FBA.

Steps of FBA

1. Complete an ABC
2. Create a summary of the pattern of behaviour
3. Identify the Function of Behaviour
4. Select an appropriate consequence

IDENTIFYING FUNCTION USING A-B-C

To identify and determine what the function of behaviour is there are three aspects to use.

A. What happened before the behaviour? (A- Antecedent)

B. What is the problem behaviour? (B- Behaviour)

C. What happened after? (C- Consequence)

By following the A-B-C format above you will better understand what your child is trying to achieve with their behaviour. This will help guide your decision of how you respond to the behaviour with the strategies you use. To work out the ABC pattern we look factors in this order:

1 2 3

BE A DETECTIVE

You need to be a detective – sometimes it takes a step back and look at the situation to work out what the child is trying to tell you. Once you can identify the meaning of the problem behaviour, you can implement a plan to change it.

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ABC EXERCISE

Anna cries when her mother puts her to bed at night. This results in mum reading and lying with her until she goes to sleep.

Routine:

A → B → C

Hemi throws his game controller and runs away when he is asked to come to the dinner table. His parents tell him he can have 10 minutes longer on the play station. Hemi yells the second time he is asked to come to the table. Parent allows him another 5minutes longer on the playstation.

Routine:

A → B → C

Jack gets angry and hits and kicks his father when he takes him to the shower at night. Jack's dad ignores his behaviour and continues to take him to the bathroom until he is calm and has his shower.

Routine:

A → B → C

IDENTIFYING FUNCTIONS – SUMMARY

The next step is to use the information from the ABC observations to produce a *hypothesis* or *summary statement* of the function.

Hypothesis or Summary Statement = tells the function

From the information from the ABC observation we can see a pattern of behaviour and then the function of behaviour can be worked out

ANNA

Summary:

_____

_____

Function:_____

HEMI

Summary:

_____

_____

Function:_____

JACK

Summary:

_____

_____

Function:_____

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FBA – *VIDEO EXERCISE*

VIDEO 1 :

A – **ANTECEDENT(S)**	**B-** **BEHAVIOUR(S)**	**C-** **CONSEQUENCE**	**=FUNCTION**
		Parent Action **Child Reaction**	

Summary:

VIDEO 2 :

A – **ANTECEDENT(S)**	**B-** **BEHAVIOUR(S)**	**C-** **CONSEQUENCE**	**=FUNCTION**
		Parent Action **Child Reaction**	

Summary:

BEHAVIOUR SUPPORT PLANS

A behaviour support plan is a plan with the goal of reducing a child's difficult or problem behaviour. There are three aspects of behaviour support plans that can be used to reduced problem behaviour either singularly or in a combination depending on what the behaviour is and how complicated the function of behaviour is.

1. Prevention strategies.
2. Replacement behaviours.
3. Matching function to appropriate consequences.

WHAT?

Behaviour support plans aim to develop strategies that will make problem behaviour **ineffective, irrelevant** and **inefficien**t by:

- Being based on the function of the problem behaviour
- Aim to prevent predictors or triggers (_____)
- Aim to teach alternative behaviours based on the _____
- Aim to reinforce and encourage alternative behaviours and decrease the likelihood of problem behaviour.

HOW?

To create a behaviour support plan, we first complete the FBA then this helps to create a behaviour pathway which shows both the current behaviour pattern and the future behaviour pattern you want to see.

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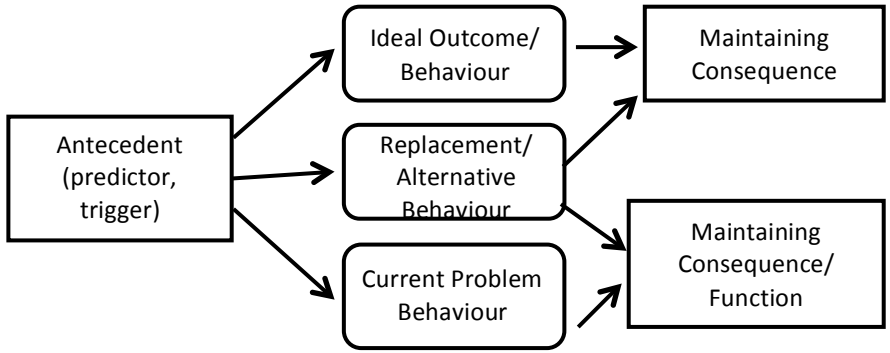
BEHAVIOUR SUPPORT PLANS

Competing Pathways

A competing pathway can be used to help work out which behaviours you would like to see replace the problem behaviours, as well as work out what consequences will encourage the new behaviour and discourage the problem behaviour.

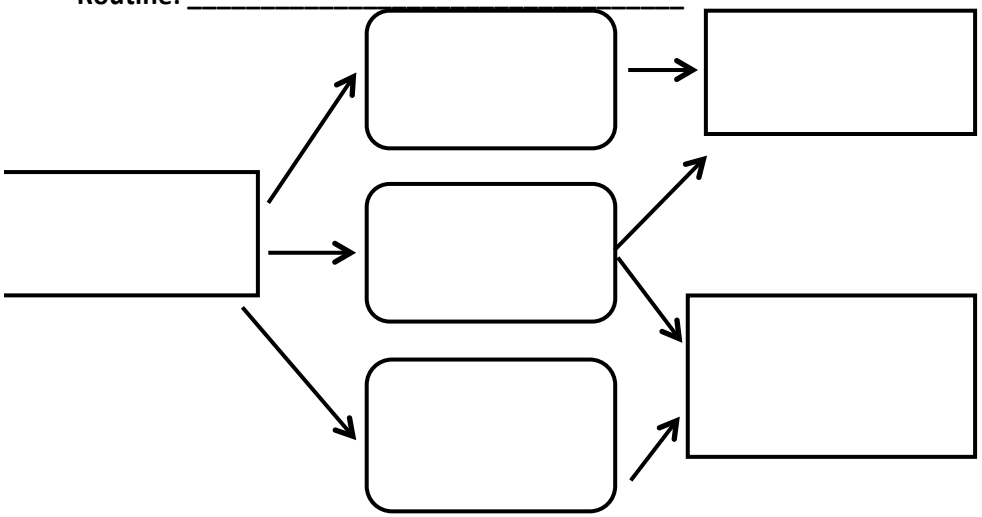


So, the replacement/alternative behavior needs to meet the same function as the problem behavior BUT be reinforced differently with a consequence that is similar/the same at the consequence for the ideal behavior.

"You should not aim to reduce a problem behaviour without also identifying alternative, desired behaviours a person should perform instead of the problem behaviour" (O'Neill et al., 1997, p.71)

Competing Pathways continued.

Routine: _____



Once you have the information from your FBA into a pathway, we can begin to look at the strategies that will encourage your replacement or alternative behaviour and eventually your 'ideal' outcome.

Reminder: the three key aspects of behaviour change are:

1. _____ → add or remove antecedents
2. _____ → teach appropriate behaviours
3. _____ → add appropriate reinforcement and remove inappropriate reinforcement.

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BEHAVIOUR SUPPORT PLANS

Prevention Strategies

Prevention strategies work on making the behaviour _____

The goal of prevention strategies is to _____the chance that your child will display their problem behaviour. Prevention strategies often require parents to _____ antecedents which usually predict the problem behaviour. Some useful prevention strategies are to:

- Keep it simple
- Explain what will come
- Make your child comfortable
- Offer help
- Use a job/sticker chart
- Reduce distractions
- Prepare activity ahead of time
- Make the activity fun
- Attend to your child when they are good
- Quality playtime

Prevention Strategies continued.

WHAT	HOW example	PERSONAL example
Keep it simple	If you have asked your child to make their bed, you could change your request and only ask him/her to pull the duvet up after you have done the rest. Then, slowly, add in other bed making tasks.	
Explain what is going to happen	If your child has issues with going to the doctor's, you might try to explain through: storybooks, role plays or pictures, what will happen at the doctors before you get there.	
Make your child comfortable	If your child acts out when they have to go to their cold bedroom after being in a warm lounge room think of ways to warm up the bedroom before it is bedtime.	
Offer help	When your child is doing a task that might be difficult; eg. getting dressed, offer your help before they begin to complain or remind your child that he/she can always ask for your help.	

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Prevention Strategies continued.

WHAT	HOW EXAMPLE	PERSONAL EXAMPLE
Use a job/sticker chart	Sometimes getting a list multiple instructions from a parent can set off problem behaviour. A job/sticker chart can be used to display what you want your child to do. You place stickers on the chart to praise the completion of each task.	
Reduce distractions	Sometimes there is too much going on and your child can't pay attention to you or your instructions. For example, you might first turn off the TV, bend down to your child's eye level, and then give the instruction.	
Prepare the activity ahead of time	Prepare activities ahead of time, and reduce your child's waiting time. For example, don't call your child to the dinner table until everything is ready.	
Make the activity fun	Children will do better in activities which are fun for them. For example, if your child dislikes walking to school, play games with them as your walk, make it a fun quality time with mum/dad.	

BEHAVIOUR SUPPORT PLANS

Replacement Behaviour

Replacement behaviour strategies aim to make the problem behaviour

_____

Replacement behaviours can be new skills for the child to learn or they may be behaviours that the child knows but they need more encouragement to use more often. These are the behaviour you wish your child to engage in rather than their problem behaviour

WHAT?

New Skills and Replacement Behaviours can be simple teachings such as:

- Asking for a turn
- Asking for an object
- Asking for an activity or privilege
- Asking for a hug
- Asking to leave
- Saying 'NO'
- Make a choice
- Follow a routine

IMPORTANT NOTE

We can't always replace behaviours. If a child doesn't want to brush their teeth or wear a selt belt – there is no other skill to be taught other than to do the unwanted activity. In this instance it is important to encourage and reinforce the appropriate behaviour. This is when prevention strategies work well with replacment behaviours - make the activity fun! Brush your teeth with your child and show them how you like to brush your teeth or make your child comfortable with a toy they can take in the car with them when they wear a seat belt 'seat belt buddy' or let them pick the music in the car if they have their seatbelt on for the whole trip.

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Replacement Behaviour continued.

HOW?

Replacement behaviour needs to have the same rewarding consequences that are maintaining the current problem behaviour.
The replacement behaviour is the first step to reaching the 'ideal' behaviour. Without giving the option of replacement behaviour the child's behaviour is likely to become worse until they get the consequence they are looking for. Here are some effective and easy ways to teach children and maintain the appropriate replacement behaviours.

Be a **Model** for your child.

Act out the behaviours you want to see.

Explain and ***show*** your child how to do the appropriate replacement behaviour.

Assist them when they are first learning

Communication

Ask your child to:
"Tell me ____ or show me what you want ___."

Then give your child what he/she wants once they tell or show you appropriately what it is they want (instead of tantrum etc). Give descriptive praise as soon as they do this. The goal here is to improve communication and use words over actions.

Reinforce and Encourage

When the child uses the appropriate replacement behaviour, use reinforcing consequences to encourage the likelihood that they continue to use this new skill.

That is

Use descriptive praise and label the behaviour they did well

Make Easy

Make the replacement behaviour easier than the problem behaviour.

Explain the benefits of the replacement behaviour. Make it obvious that this behaviour choice is a much better/faster/easier/more fun option to get the same result of their problem behaviour

Replacement Behaviour continued.

Problem Behaviour	Replacement Behaviour	How to teach/reinforce
Hitting for Attention		
Scream/Yelling when asking child to do a task		
Hurting Siblings/Peers for an item		
Running away from difficult tasks		

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MATCHING FUNCTION AND CONSEQUENCES

REMINDER:

Reinforcement are strategies that _____ behaviour.

Punishment are strategies that _____ behaviour.

Consequences are events or factors that occur_____ the behaviour.

Consequences should reward the replacement behaviour so the problem behaviour is discouraged = making the problem behaviour *ineffective.*

Consequences can be used in different ways.

1. Change the consequences that have reinforced the problem behaviour (prevention, replacement or punishment)
   or
2. Reward the appropriate /replacement behaviour (reinforcement)

Matching reinforcement/consequences to the function of behaviour is important as if we choose an inappropriate reinforcement/consequences we might encourage the problem behaviour or the problem behaviour may escalate further.
To help make the decision on what is the appropriate consequence we use all the component of an FBA process to work out what the best consequence is.

A key factor when using consequences is_____ and

_____

CONSEQUENCE					
BEHAVIOUR					
ANTECEDENTS					
FUNCTION					

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MY BEHAVIOUR PLAN

Routine: _____

Antecedent: _____

Behaviour: _____

Function: _____

Consequences:

1. What could I do to prevent this behaviour? List the strategies I could use to prevent this behaviour.

- _____

- _____

2. What could I do if this behaviour occurs? List the strategies I will use if this behaviour occurs.

- _____

- _____

- _____

3. What new skills should I teach my child to replace this behaviour? List some replacement behaviours that would be more appropriate for my child.

- _____

- _____

- _____

MY BEHAVIOUR PLAN

Routine: _____

Antecedent: _____

Behaviour: _____

Function: _____

Consequences:

1. What could I do to prevent this behaviour? List the strategies I could use to prevent this behaviour.

- _____

- _____

2. What could I do if this behaviour occurs? List the strategies I will use if this behaviour occurs.

- _____

- _____

- _____

3. What new skills should I teach my child to replace this behaviour? List some replacement behaviours that would be more appropriate for my child.

- _____

- _____

- _____

Parent Empowering Programme; *Teaching Parents Functional Behaviour Assessment and Positive Behaviour Intervention Strategies*

Workshop 1:
REGARDING KNOWLEDGE AND CONFIDENCE:
Where were you on the scale at the start of this workshop?
Where are you now?

Workshop 2:
REGARDING KNOWLEDGE AND CONFIDENCE:
Where were you on the scale at the start of this workshop?
Where are you now?

What is Behaviour?

How to Measure Behaviour

What Causes and Effects Problem Behaviour?

Antecedents, Consequences and Strategies

Function of Behaviour

Functional Behaviour Assessment (FBA and A-B-C)

Behaviour Support Plans

Matching Function to Consequences

Your Behaviour Plan

Implementation at home

Stay strong and stay consistent – *if you are persistent you'll get it, and if you are consistent you will keep it.*

References

The information within this handbook has been a collaboration of the research from:

Fettig, A., & Barton, E. E. (2014). Parent Implementation of Function-Based Intervention to Reduce Children's Challenging Behavior A Literature Review. *Topics in Early Childhood Special Education*, *34*(1), 49-61.

Fettig, A., Schultz, T. R., & Sreckovic, M. A. (2015). Effects of Coaching on the Implementation of Functional Assessment–Based Parent Intervention in Reducing Challenging Behaviors. *Journal of Positive Behavior Interventions*, 1098300714564164.

Fox, L., Dunlap, G., & Cushing, L. (2002). Early intervention, positive behavior support, and transition to school. *Journal of Emotional and Behavioral Disorders*, *10*(3), 149-157.

McNeill, S. L., Watson, T. S., Henington, C., & Meeks, C. (2002). The effects of training parents in functional behavior assessment on problem identification, problem analysis, and intervention design. *Behavior modification*, *26*(4), 499-515.

Mitchell, G. L., Farrow, C., Haycraft, E., & Meyer, C. (2013). Parental influences on children's eating behaviour and characteristics of successful parent-focused interventions. *Appetite*, *60*, 85-94.

Reid, M. J., Walter, A. L., & O'Leary, S. G. (1999). Treatment of young children's bedtime refusal and nighttime wakings: a comparison of "standard" and graduated ignoring procedures. *Journal of abnormal child psychology*,*27*(1), 5-16.

Shayne, R., & Miltenberger, R. G. (2013). Evaluation of behavioral skills training for teaching functional assessment and treatment selection skills to parents. *Behavioral Interventions*, *28*(1), 4-21.

In addition, information, handbook layout and activity designs, were adapted from these resources;

Hemmeter, M. L., (n.d.). Center on the Social and Emotional Foundations for Early Learning. http://csefel.vanderbilt.edu/index.html

Loman, S., & Borgmeier, C. (2013). Practical Functional Behaviour Assessment Training Manual for School-Based Personnel. http://www.pbis.org/common/cms/files/pbisresources/PracticalFBA_TrainingManual.pdf

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Phillips, J. G. Tyler-Merrick, G. & Church, R. J. (2013). Handbook

Appendix D: Ethics Approval

Ref: HEC 2015/43

3 June 2015

Ilia Lindsay
School of Health Sciences
UNIVERSITY OF
CANTERBURY

Dear Ilia

The Human Ethics Committee advises that your research proposal "Teaching parents functional assessment to implement within their home with their children" has been considered and approved.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 3 June 2015.

Best wishes for your project.

Yours Sincerely

Lindsey MacDonald

Chair

University of Canterbury Human Ethics Committee

Appendix E: Participant Information Form

Teaching Parents Functional Behaviour Assessment to implement within their home with their children
A Master's Thesis Project

Department of Health Sciences, University of Canterbury
Ilia.lindsay@pg.canterbury.ac.nz

Information Form for Parents/Caregivers

Kia Ora,

My name is Ilia Lindsay and I am currently undertaking my Child and Family Psychology Master's Thesis. I am working with Ms X with the purpose of teaching and then examining the effects of training parents in Functional Behaviour Assessment (FBA) and prosocial behaviour strategies during a daily routine times such as bed, bath or eating times with their child.

FBA is a technique that shows patterns of behaviour and helps determine the reason/function of the difficult behaviour. FBA is a beneficial skill for parents to learn as once the function of a child's behaviour is identified parents can then teach prosocial skills which will help decrease the difficult behaviour. Based on international research, I have developed a two - two hour workshop to teach FBA skills to parents and also teach prosocial skills to replace the difficult behaviour the child is engaged in. What I am interested to see, in my project, is whether the FBA training and the teaching of prosocial strategies has any effect on the child's disruptive behaviour.

I am hoping to get up to six parents to participate in my workshops who have a child between the ages of 3-10 that has difficult to manage behaviours around a daily routine time such as bed/bath/dinner/breakfast/dressing time. I want to focus on 'typically developing' children without any formal diagnoses. If you and your child fit this profile I would like to invite you to join my parent group.

My project involves two parts.

Workshops

The two workshops are designed to teach a small group of up to 6 parents to perform FBA and learn appropriate prosocial intervention skills depending on the function of their child's behaviour. The workshops are spilt into learning FBA and learning appropriate prosocial intervention strategies. To provide optimal learning opportunities, these workshops will use a range of materials and teaching methods such as, New Zealand specific videos, work books, PowerPoints and role plays.

In-home video component

As I am situated in Christchurch I will request that you to take some in home video recordings so that I can see whether the two parent workshops have any effect on your child's disruptive behaviour.

The video component involves a 10minute video recording of you and your child's interactions during a normal home routine where your child engages in disruptive behaviour. The video recordings will occur up to 8 times at designated points of the study; at the beginning (before workshops commence) after the workshops are completed and later at follow up points. You will be required to set up these videos I will not be coming into your home. Once you have completed the recordings for each phase of the study you will be asked to send the recordings to me via email or a secure upload forum. If you do not have a device to make home recordings I can supply this for you. Being involved in this project will require you to complete number of tasks and activities within the parent workshops and in your own home.
These tasks and activities include:

- An initial meeting at an organised location to gather demographic information and complete approximately 20 questions survey to understand your family's needs.
- Participation in the two group workshops which will run for no more than 2 hours each. These will be held 1 week apart (day and time TBC) at X Primary School
- Completing a questionnaire at the end of each workshop.
- Complete some in home tasks after each workshop such as; answering reflection questions or completing a checklist.
- Completing an approximately 15 question social validity questionnaire on the effectiveness of the parent workshops
- Be willing to set up a recording device in order to record your interaction with your child during the daily routine of concern.
- Be willing to write a short diary log of the interaction captured on the recording device
- Be willing to be observed in your natural home environment through video recordings.

If you require any assistance during the in-home components of my project you will be able to either phone, Facetime or Skype me and I will help you through your situation. In addition should I identify that you are having difficulty implementing the strategies in your home, I will speak to my supervisors and with their help we will provide additional coaching to assist you.
Any data recorded in workshops or interviews and home video recordings will be kept secure with my senior supervisor for the five years as stated by the Ethics Committee guidelines. The information collected will be kept in the strictest confidence and will be stored in locked filing cabinets in my senior supervisor's office, or on password protected servers and will be destroyed after five years. Names and any identifying details will be changed to maintain confidentiality and anonymity of both you and your child(ren) throughout the project. At the end of the project, I will give you a summary of the study. The results of the project may be published, but be assured that complete anonymity and confidentiality of data gathered will be maintained. To ensure anonymity and confidentiality your name and any identifiers will be coded. This thesis will be a public document and will be available through the UC Library.

Please remember that your participation is voluntary and you have the right to withdraw at any stage without penalty or explanation. You can withdraw easily and without embarrassment by emailing me at Ilia.lindsay@pg.canterbury.ac.nz or phoning me on (XXX) XXXXXXX. If you choose to withdraw, I will do my best to remove any information relating to you, provided this is practically achievable.

The project is being carried out as a requirement for a Master of Science in Child and Family Psychology degree, under the supervision of Dr. Gaye Tyler-Merrick (senior supervisor) who can be contacted at gaye.tyler-merrick@canterbury.ac.nz. She will be pleased to discuss any concerns you may have about participation in the project. If you any questions during any stage of the research you are most welcome to contact me at the details below or, either of my senior supervisor.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (humanethics@canterbury.ac.nz).

As my project is limited to a maximum of six parents please contact me promptly if you wish to join me as participant positions are filled on a first come, first entry criteria. If all participant positions are filled I will contact you to let you know.

If you understand and agree to take part in this study please complete the attached consent form and I will collect this from you at the beginning of our first meeting.

Many thanks,

Ilia Lindsay
Email: Ilia.lindsay@pg.canterbury.ac.nz Phone: XXX XXXXXXX

Senior Supervisor
Gaye Tyler-Merrick
Email: gaye.tyler-merrick@canterbury.ac.nz Phone: (XX) XXX - XXXX

Secondary Supervisor
Lawrence Walker
Email: lawrence.walker@canterbury.ac.nz

Appendix F: Participant Consent Form

Teaching parents Functional Behaviour Assessment to implement within their home with their children.
A Master's Thesis Project

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Department of Health Sciences, University of Canterbury
ilia.lindsay@pg.canterbury.ac.nz

Consent Form for Parents/Caregivers

Please tick the following boxes to give your consent.

☐ I give permission for my participation in the research study titled 'Teaching parents Functional Behaviour Assessment to implement within their home with their children.'

☐ I have read and understood the information given to me about the research project and what will be required of me throughout the research.

☐ I have also been given the opportunity to ask any questions.

☐ I have read the child information sheet to my child.

☐ I understand that throughout the project my name and my child's name or any other identifiers will be coded to protect and maintain confidentiality and anonymity. The names of me and my child will not be used in any report, conference or publication.

☐ I understand that up to twelve home video observations will be made by Ilia. These will be only viewed by Ilia, her supervisors and a post graduate student who will assist with reliability.

☐ I understand that should I feel distressed during any part of the in-home components of the research I have the option to phone, Facetime or Skype Ilia and Ilia will help me through the situation.

☐ I understand that any information and data collected will be kept in the strictest confidence and will be stored in locked filing cabinets in my senior supervisor's office and will be destroyed after five years in alignment with the Human Ethics Committee guidelines.

☐ I understand that Ilia's thesis is a public document and will be available through the UC Library

☐ I understand that participation in this project is voluntary and that I can withdraw from the project without having to give a reason by contacting the researcher via email or phone call.

☐ I understand that I am able to receive a report on the findings of the study by contacting the researcher at the conclusion of the project.

☐ I understand that I can contact the researcher Ilia Lindsay (ilia.lindsay@pg.canterbury.ac.nz) or her supervisor Dr. Gaye Tyler-Merrick (gaye.tyler-merrick@canterbury.ac.nz) for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Human Ethics Committee, Private Bag 4800, Christchurch (humanethics@canterbury.ac.nz)

☐ I would like to receive a copy of the research results on completion of the Thesis project.

☐ I understand that in signing this consent form I am providing assent for my child _____to be recorded in the home video component of this research.

By signing below, I agree to participate in this research project

Name: _____

Signature: _____

Date: _____/_____/_____

Email address to send final report:

_____

Please bring this completed consent form with you to your first meeting with Ilia.

Kind regards

Ilia Lindsay

Appendix G: Child Information Form

Teaching Parents Functional Behaviour Assessment to implement within their home with their children
A Master's Thesis Project

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Department of Health Sciences, University of Canterbury
Ilia.lindsay@pg.canterbury.ac.nz

Child Information Sheet (parent please read to child).

Ilia is doing a project at university. She is going to work with us to see how and what we do during our bed/dressing/breakfast/dinner time (as applicable) through a video set up in the room. She will watch us all on the video and take notes about what we do and how we do it. Ilia will then work with us (as applicable) to help make these times more enjoyable and less stressful than they are now. We (as applicable) will video these times and give the video to Ilia and her teachers to watch and record what happens.

When Ilia writes about us, we will be given a code name so that no-one will know our names or where we live.

This project is being carried out as a requirement for Ilia's university degree and she has her teacher Gaye helping her.

If you have any questions you can talk to us, Ilia or Gaye. If you change your mind about being in the project, that's fine, too. All you have to do is to tell us or Ilia. Do you have any questions?

If you agree to participate in the study, please give your assent by signed the consent form.

Thank you for helping with the project.

Ilia Lindsay

Ilia.lindsay@pg.canterbury.ac.nz

Appendix H: Child Consent Form

Teaching parents Functional Behaviour Assessment to implement within their home with their children.
A Master's Thesis Project

Department of Health Sciences, University of Canterbury
ilia.lindsay@pg.canterbury.ac.nz

Consent Form for Child (parent/researcher please read to child).

Please tick the following boxes to give your consent.

☐ I agree to be a part of Ilia's project. '

☐ I understand that during Ilia's project I will be videoed at home during bed/bath/dinner/breakfast (as applicable)

☐ I understand that Ilia, her teachers and a research helper will be the only people who watch the videos of me and my brother, sister, mum and dad (as applicable).

☐ I understand that my name and my brother, sister, mum and dad (as applicable) names will not be used when Ilia writes up her project. We will all have codes so that no one will know who we are or where we live.

☐ I understand that any information Ilia takes about my family will be kept in a safe secured place.

☐ I understand that I can stop being a part of Ilia's project if I don't want to anymore.

☐

I understand that I can ask Ilia (ilia.lindsay@pg.canterbury.ac.nz) or my mum or dad (as applicable))if I want to know anything else or have questions about the project.

By signing below, I agree to be a part of Ilia's research project

Child's name: _____

By signing below, I declare that I have read through both the information and consent form with my child.

Signed parent/caregiver: _____ Date: ____/_____/_____

Please bring this completed consent form with you to your first meeting with Ilia.

Thank You,
Ilia Lindsay

Appendix I: Demographic FACTS Form

Teaching Parents Functional Assessment to implement within their home with their children. A Master's Thesis Project

Department of Health Sciences, University of Canterbury
ilia.lindsay@pg.canterbury.ac.nz

Demographic and FACTS Questionnaire adapted from of March et al. (2000) and Li, (2011).

Date:

Interviewer Name: _____

Parent Name: _____ Age: _____

Occupation: _____

Ethnicity: _____

Child Name: ____ _____ Age:_____

Ethnicity: _____

Family Make-up:

__Single parent	__Step parents	__Partner	__Extended Family
__Married Parents	__Siblings (please state age, gender, status =step/half)		
__Other	. _____		

Problem Routine: _____Daily Frequency: 1 2 3 4 5 6 +

How long has this routine been an issue? (when did the behaviours start)

_____

Problem Behaviour(s): Identify the problem behaviours:

__Tardy	__Fight/Physical Aggression	__Disruptive	__Unresponsive
__ Self-Injury	__Inappropriate Language	__Verbal Outburst	__Escape
__Tantrum	__Vandalism of Property	__Defiance	__ Other

Target Behaviour(s): Prioritize these behaviours (which is most important to be addressed).

1.	4.	7.
2.	5.	8.
3.	6.	9.

Provide more detail about the problem routine (s):

What does the disruptive routine look like? (what, who, when, duration, daily/weekly occurrence).

What procedures have you followed when the behaviour occur that have not worked?

_____

_____

What procedures have you followed when the behaviour occur that have worked?

_____

_____

What are the events that predict when the problem behaviour(s) will occur?

Related Issues (settings events)	Environmental Features
__illness __tiredness __hunger __timing conflicts __family conflict __school conflict (peer or academic) __other:	__ reprimand/correction __physical demands __socially isolated __shared parental attention __ with other people (state who) __task is too boring __task is too hard __task is too easy __routine is too long __other

Perceived Function: What do you think causes or motivates the behaviour?

Things that are obtained	Things that are avoided or escaped from
__parent attention __sibling attention __preferred activity __tangible (money, toys, lollies) __other:	__ hard tasks __boring tasks __reprimands __social isolation __shared parental attention __ attention of another person (state who) __ physical effort __other

Is there any circumstances under which the behaviour will always occur?

Is there any circumstances under which the behaviour will not occur?

What are some things your child likes and are reinforcing for him/her?

_____

_____

What are some things your child dislikes and are punishment for him/her?

_____

How do you feel during the routine of concern? (what emotions do you experience)

_____

_____

How do you think your child feels during the routine of concern (what emotions do they show during and after the routine)

_____

_____

Other Comments and Additional Questions (as applicable)

Consent forms collected: **__Parent __Child**

Recording procedure and diary logs explained: **YES / NO**

Signed (parent) _____

Signed (researcher) _____ **PARTICIPANT CODE: _____**

Appendix J: Knowledge Quiz

Teaching Parents Functional Behaviour Assessment to implement within their home with their children.
A Master's Thesis Project

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Department of Health Sciences,
University of Canterbury ilia.lindsay@pg.canterbury.ac.nz

Knowledge Quiz

Name: _____ Date: _____/_____/_____

Please indicate which assessment you are completing: **Baseline** **Final**

Behaviour

1. **Behaviour is defined as something which is *(please circle any answers you think are correct):***

An Action Observable Emotional Outbursts Measureable Social

2. **Which of the options below are behaviour *(please circle any answers you think are correct):***

Crying Frustration Tired Happy Laughing Concentrating Tantrum

3. **When measuring behaviour, what are the two main characteristics? *(please circle any answers you think are correct)***

Duration/Frequency Time/Intensity Frequency/Who is present Intensity/Scale

4. **_____ are factors or events that happen before behaviour occurs. They are offer referred to as triggers or causes of behaviour *(fill in the gap).***

5. **_____are factors or events that occur <u>after</u> behaviour. They can increase or decrease the likelihood of a behaviour occurring again *(fill in the gap.)***

Consequences and Strategies

1. **Smiling, rolling eyes, crossing arms, picking up your child are all examples of what consequence strategy? *(please circle any answers you think are correct)***

Encouragement Attachment Caring Attention

2. **Which type of timeout is shown to be more effective in behaviour management? *(please circle any answers you think are correct)***

Exclusive Timeout Individual Timeout Inclusive Timeout Group Timeout

3. **Praise and Encouragement can have a much greater influence on child behaviour when they are _____ and include _____ (*fill the gaps with options below)*.**

Descriptive/Parents Positive/Guidance Descriptive/Physical Warmth Spoken/Interaction

4. **When using planned ignoring-extinction, extinction bursts can occur. What happens in these bursts? *(please circle any answers you think are correct)***

   A) Increase in problem behaviour either in frequency or intensity.
   B) Increase in good behaviour either in frequency or intensity.
   C) Increase of new behaviours either in frequency or intensity.

5. **When children are well behaved it is important to show them_____. However, when children misbehave it is important that _____ is used (*fill the gaps with options below)*.**

Positive Attention/Negative Attention Encouragement/Negative Punishment

Support/Positive Punishment Support/Negative Support

6. **A) Do not give eye contact**
   B) Try to maintain neutral facial expression and body language
   C) Continue to carry on with your activity
   These are three essential components in the strategy _____*(please circle any answers you think are correct)*

Timeout Planned Ignoring-Extinction Negative Attention Negative Praise

7. **When using timeout strategies how long should a child be left for *(fill in the gap)***

_____

8. **Hana is yelling to her parents from her bedroom after being put to bed. Her yelling is getting louder and more frequent. What would be an appropriate consequence or strategy to use? *(please circle any answers you think are correct)***

Timeout Planned Ignoring-Extinction Negative Attention Punishment

9. **Niko arrives at the dinner table after washing his hands without having to be told to do so. What would be an appropriate consequence or strategy to use? *(please circle any answers you think are correct)***

Descriptive Praise Support Positive Attention Positive Punishment

10. **If a child is at risk of harming themselves, others, you, or property what is an appropriate consequence or strategy to use? *(please circle any answers you think are correct)***

Inclusive Timeout Exclusive timeout Individual timeout Punishment

Functional Behaviour Assessment

1. **Three main functions of child behaviour are:** ***(please circle any answers you think are correct)***

    A) Attention, Escape/Demand, Tangible

    B) Escape/Demand, Anger, Pleasure

    C) Attention, Tangible, Support

2. **Functional behaviour assessment allows us to see the pattern of behaviours and make an educated guess of the _____ of behaviour** ***(fill in the gap)***

3. **The functional behaviour assessment process of A-B-C stands for: (*fill the gaps*)**

    A _____

    B _____

    C _____

4. **When 4-year old Tia has missed her afternoon nap, she often cries and tantrums when she has to share her toys. When Tia's 2-year old brother tries to take one of Tia's blocks she throws a block at her brother. When Tia's father askes her not to do that again, she ignores him and picks up another block and throws it towards her brother. Tia's father goes to her level and explains what she has done is not expectable she needs to share with her brother or take turns. She is removed to a timeout area close by for 4minutes. After 4minuters her father explains again what she did wrong and what she should do instead.**

    Please list any factors or events that fit into the A-B-C process: (*fill the gaps*)

    A _____

    B _____

    C _____

    Function:

    _____

5. **Ben throws his toys at his father and then runs away to another room when he is asked to and come to the dinner table. The function of Ben's behaviour is likely to be:** ***(please circle any answers you think are correct)***

Attention Escape/Demand Tangible Support Anger

6. **Kate ignores her mother requests to brush her teeth. When Kate's mother explains she will turn off the television until she goes and brushes her teeth, Kate starts to yell 'No, not until this is finished!' Kate's mother turns off the television and Kate's behaviour intensifies into a full tantrum. The function of Kate's behaviour is likely to be:** ***(please circle any answers you think are correct)***

Attention Escape/Demand Tangible Support Anger

7. **Tane tugs at his mother's leg while she feeds his younger sibling. When Tane's mother continues to look after the younger sibling Tane begins to cry and tug more intensely at his mother's leg. The function of Tane's behaviour is likely to be:** ***(please circle any answers you think are correct)***

Attention Escape/Demand Tangible Support Anger

8. **Behaviour support plans are created to try make problem behaviours ___ , _____and___ (*fill the gaps with options below)*.**

   A) Unused, Unwanted, Unnecessary
   B) Positive, Constructive, Affirmative
   C) Ineffective, Irrelevant, Inefficient

9. **A behaviour support plan uses information from functional behaviour assessment process to change problem behaviour through:** ***(please circle any answers you think are correct)***

Match function and appropriate Consequences Teach Alternative Replacement Behaviours

Reinforce and Encourage Appropriate Behaviours Prevent Predictors or Triggers

10. **Attending to your child when they are good, Reduce distractions, Make the activity fun, Give warning, are all types of**: ***(please circle any answers you think are correct)***

Replacement Behaviour Prevention Strategies Consequences Punishment

11. **Modelling, Communication, Reinforcement and Encouragement and Making Easy are all ways to teach and maintain**: ***(please circle any answers you think are correct)***

Replacement Behaviour Prevention Strategies Consequences Punishment

12. **To change and manage problem behaviour we use _____ which allows us to create a _____ which may include _____, _____ and _____ depending on the behaviour. Research has shown that when this is done by parents to their child, child problem behaviour decreases (*fill the gaps with options below)*.**

A) Functional Behaviour Assessment, A-B-C plan, Consequences, Punishments, Strategies that match function

B) A-B-C plan, Behaviour support plan, Prevention strategies, Consequences, Punishments

C) Functional Behaviour Assessment, Behaviour support plan, Prevention strategies, Replacement behaviours, Consequences that match function.

Thank you, please make sure your name is on the front of this sheet and you have circled the appropriate test.

Appendix K: Parent Diary

What Next?

Please hold on to this booklet and bring to WORKSHOP 1.

Ensure you have completed **three** of the diary logs.

Contact:

If you have any questions or concerns feel free to contact me at any time.
If you are unable to bring this with you to WORKSHOP 1 please send to the address below.

Email: ilia.lindsay@pg.canterbury.ac.nz

Address:

Dr. Gaye Tyler-Merrick
c/o School of Health Science Office
in The College of Education, Health and Human Development,
University of Canterbury,
Dovedale Avenue
Christchurch

Many thanks,
Ilia Lindsay

PEP *University of Canterbury*

Parent Diary Log:

Baseline Phase

Parent Empowering Programme

UNIVERSITY OF CANTERBURY

Information within this booklet is confidential if found please return to:

_____

Date: _____
Name: _____
Routine: _____
Baseline 1 – 2 – 3 (please circle one)

Antecedents (Before)	Behaviour (During)	Consequence (After)

Date: 8/3/16
Name: ILIA
Routine: Bedtime
Baseline 1

Antecedents (Before)	Behaviour (During)	Consequence (After)
- child was told to go to bed.	child got out of bed and came to lounge. - ~~IIII~~ I child yelled from bedroom - III child asked for drink - II	- ignored child and returned them to bed, - child fell asleep

Baseline2

Date: _____
Name:_____
Routine:_____
Baseline 1 – 2 – 3 (please circle one)

Antecedents (Before)	Behaviour (During)	Consequence (After)

Baseline3

Date: _____
Name:_____
Routine:_____
Baseline 1 – 2 – 3 (please circle one)

Antecedents (Before)	Behaviour (During)	Consequence (After)

Appendix L: Social Validity Questionnaire

Teaching Parents Functional Behaviour Assessment to implement within their home with their children.
A Master's Thesis Project

Department of Health Sciences,
University of Canterbury ilia.lindsay@pg.canterbury.ac.nz

Social Validity Questionnaire Adapted from Li, (2011).

1 = Strongly Agree; 2 = Agree, 3= Neutral, 4 = Disagree, 5 = Strongly Disagree

The Group Workshop

1. The components of the workshop were well organised

1 2 3 4 5

2. The examples and video resources were easy to relate to

1 2 3 4 5

3. The mixture of written, visual and physical learning activities was beneficial for my learning

1 2 3 4 5

4. The information provided was thorough

1 2 3 4 5

5. The instructor showed knowledge and professionalism when providing training

1 2 3 4 5

6. The workshop was interactive and enjoyable

1 2 3 4 5

7. The group setting encouraged relationships between parents

1 2 3 4 5

8. The group setting fostered a support network between parents

1 2 3 4 5

Functional Behaviour Assessment Strategies

1. The teaching of Functional Behaviour Assessment strategies was understandable and helpful

   1 2 3 4 5

2. Functional Behaviour Assessment strategies were relatable to my family situation

   1 2 3 4 5

3. I have confidence in my ability to perform Functional Behaviour assessments

   1 2 3 4 5

New Zealand resources

1. The materials used within the PEP workshops were clearly New Zealand resources.

   1 2 3 4 5

2. The New Zealand based materials influenced my acceptance of programme content.

   1 2 3 4 5

Please comment: _____

Overall Satisfaction

1. Overall training time was appropriate

   1 2 3 4 5

2. I would use the skills learned again with my child if necessary

   1 2 3 4 5

3. The information gained through this training helped me to better understand my child

   1 2 3 4 5

4. I would recommend learning about Functional behaviour assessment to other parents

   1 2 3 4 5

5. I am satisfied with the training programme

   1 2 3 4 5

Further Comments or Suggestions

Appendix M: Research Assistant Information Form

Teaching parents Functional Behaviour Assessment to implement within their home with their children.
A Master's Thesis Project

UC UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Department of Health Sciences, University of Canterbury
ilia.lindsay@pg.canterbury.ac.nz

Information Form for Research Assistant

Kia Ora,

My name is Ilia Lindsay and I am currently undertaking my Child and Family Psychology Master's Thesis. The purpose of my study is to examine the effects of training parents in Functional Behaviour Assessment (FBA) and prosocial behaviour strategies, on the duration and/or frequency of disruptive child behaviours around daily routine times (bed, bath, eating times).

FBA is a technique that shows patterns of behaviour and helps determine the reason/function of the difficult behaviour. FBA is a beneficial skill for parents to learn as once the function of a child's behaviour is identified parents can then teach prosocial skills which will help decrease the difficult behaviour. Based on international research, I have developed a two - two hour workshop to teach FBA skills to parents and also teach prosocial skills to replace the difficult behaviour the child is engaged in. What I am interested to see, in my project, if the FBA training and the teaching of prosocial strategies has any effect on the child's disruptive behaviour.

I am hoping to get up to six parents to participate in my workshops who have a child between the ages of 3-10 that has difficult to manage behaviours around a daily routine time such as bed/bath/dinner/breakfast/dressing time. I want to focus on 'typically developing' children without any formal diagnoses.

My project involves two parts.

Workshops

The two workshops are designed to teach a small group of up to 6 parents to perform FBA and learn appropriate prosocial intervention skills depending on the function of their child's behaviour. The workshops are spilt into learning FBA and learning appropriate prosocial intervention strategies. To provide optimal learning opportunities, these workshops will use a range of materials and teaching methods such as, New Zealand specific videos, work books, PowerPoints and role plays.

In-home video component

The video component involves a video recording of parent and child's interactions during a normal home routine where the child engages in disruptive behaviour. The video recordings will occur up to seven times at designated points of the study; at the beginning for three recordings, after the workshops for three sessions and later at follow up for one recording. Parents will be required to set up these videos I will not be present in the home. Once parents have completed the recordings for each phase of the study they will be asked to send the recordings to me via email or USB.

Being involved in this project will require you to complete number of tasks which you will be trained in.
These tasks and activities include:

- Coding participants data
- Data collection
- Data analysis.

Any data recorded in workshops or interviews and home video recordings will be kept secure in locked storage facilities or electronically on password protected servers. Any data information collected must be kept in the strictest confidence and participants identify anonymous.

Any work that you perform within this role will be returned to Ilia Lindsay or her supervisors at the end of your work session. You are not to withhold any data or personally store the data.

The project is being carried out as a requirement for a Master of Science in Child and Family Psychology degree, under the supervision of Dr. Gaye Tyler-Merrick (senior supervisor) who can be contacted at gaye.tylermerrick@canterbury.ac.nz. She will be pleased to discuss any concerns you may have about participation in the project.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

Many thanks,

Ilia Lindsay
Email: ilia.lindsay@pg.canterbury.ac.nz Phone: 0273063100

Senior Supervisor

Gaye Tyler-Merrick

Email: gaye.tylermerrick@canterbury.ac.nz Phone: (03) 345-8380

Secondary Supervisor
Lawrence Walker
Email: lawrence.walker@canterbury.ac.nz

Appendix N: Research Assistant Consent Form

Teaching parents Functional Behaviour Assessment to implement within their home with their children.
A Master's Thesis Project

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Department of Health Sciences, University of Canterbury ilia.lindsay@pg.canterbury.ac.nz

Consent Form for Research Assistant

Please tick the following boxes to give your consent.

☐ I am willing to act as the research assistant in the research study titled 'Teaching parents Functional Behaviour Assessment to implement within their home with their children.'

☐ I understand what the aim and purpose of the study is.

☐ I understand that I will be trained in the skills necessary to fore fill this role.

☐ I understand that all data within the study is confidential and participants shall remain anonymous.

☐ I understand that any information I handle will be returned to Ilia Lindsay and she will store this in a secured storage facility.

☐ I understand that any work I do regarding this study will be completed on a password protected server and will be saved as directed by Ilia Lindsay.

☐ I understand that I can contact Ilia (ilia.lindsay@pg.canterbury.ac.nz) or her supervisor Dr. Gaye TylerMerrick (gaye.tylermerrick@canterbury.ac.nz) if I want to know anything else about the project

By signing below, I agree to act as the research assistant in this project.

Signed: _____ Date: ____/_____/_____

Thank You,

Ilia Lindsay.